Harry M Marks, *The progress of experiment: science and therapeutic reform in the United States, 1900–1990*, Cambridge History of Medicine, Cambridge University Press, 1997, pp. xii, 258, £45.00, $59.95 (hardback 0-521-58142-7), £14.95, $19.95 (paperback 0-521-78561-8).

The publication of this paperback edition of *The progress of experiment* is to be warmly welcomed. Since its original appearance in 1997, the book has become essential reading for anyone thinking about the place of science within twentieth-century medicine. Harry M Marks' subject is how Americans decided whether drugs were safe and whether they worked, in an age when market forces seemed to muddy such questions. Today the randomized clinical trial is touted as *the* means of evaluating drugs, but this was not always the case, nor was it always certain that this measure would prevail.

Marks' story revolves around those he characterizes as "therapeutic reformers", a motley group of pharmacologists, physiologists, statisticians, clinical specialists and others, who sought to use controlled experiments to direct medical practice. Concerned about the dubious claims of unethical pharmaceutical companies for their products, and the seeming inability of many medical practitioners to see through such claims, reformers looked for a solution to the integrity of experienced researchers dedicated to the ideals of experimental science. To this end, they came to promote what they called "collective investigations" in the nineteenth century, and "cooperative studies" or "investigations" in the 1930s and 1940s. As the names suggest, these investigations involved a bevy of experts—community-based physicians in the former, university-based researchers in the latter—collaborating to evaluate the therapeutic effects of drugs. In the early 1930s, Marks notes, such studies were used to avoid the methodological pitfalls of relying on individually conducted research, on idiosyncratic meanings of disease and treatment, and on small case series the conclusions of which might be distorted by the cycles of spontaneous recovery and remission characteristic of many ills.

Before the Second World War, Marks argues, therapeutic reformers focused on creating institutional mechanisms for improving therapeutic practice. Thus, in 1906 the American Medical Association established its Council of Pharmacy and Chemistry, which comprised a body of experienced researchers who sought to provide independent evaluations of drug companies' claims about the effects of specific therapies on disease. The US Food and Drug Administration (FDA) adopted the Council's methods when it became involved in assessing the safety and efficacy of drugs in the 1930s and 1940s. Yet, in the end, such methods were not to survive as a means of regulating therapeutic practice, and the FDA decided that it could not stop physicians using medicines for purposes for which they had not been approved.

If this book is a story about the mechanisms by which reformers sought to evaluate drugs, it is also about the ideals embedded in such mechanisms or, more properly, the death of certain ideals. Reformers once saw science as a means of instilling a critical attitude towards therapeutics across the medical profession, yet this utopian vision soon faded. The fact that so many practitioners, although scientifically trained, seemed to fall prey to the marketing hype of the drugs companies raised questions about their competence. Differences in training and technical skill, reformers felt, continued to divide the profession, despite the high hopes vested in science as a means of dissolving such difference. Their disillusion was built into the institutional mechanisms by which reformers sought to assess the value of drugs. Certain groups—university-based physicians, government scientists and others—gained much more say than the rest

of the profession in deciding how drugs were to be evaluated.

If the ideal of a profession united by science fell by the wayside, so too did another key element of reform ideology; the trust placed in the high moral character of individual clinicians to ensure the integrity of observations on the therapeutic effects of drugs. Marks argues that during and after the Second World War this trust began to fade. It was replaced at the urging of statisticians and others, with a reliance on formal statistical methods—notably the double-blind, randomized, controlled clinical trial—as means of assessing and improving therapeutic knowledge. A faith in method as the motor of reform superseded a faith in the moral qualities of individuals. Marks is not the first to trace a shift from a trust in people to a trust in numbers, but his may be the strongest historical voice arguing for the incompleteness of this change. As advocates of clinical trials constantly remind us today, the clinical trial has not permeated all areas of medical research, and most therapeutic practices have not been subject to the probe of a trial. It is also true that experts disagree on the value of particular designs for clinical trials, and on how to explain results.

This then is the story of an incomplete revolution. It is grounded in detailed case studies: (before the Second World War) the Cooperative Clinical Group's study of syphilis treatments, and the Commonwealth Fund's experiment with serum treatment for pneumonia; (during and after the War) the National Research Council's penicillin investigations, and the Veteran Administration/Public Health Service investigations of streptomycin; and (in the 1960s) the National Institutes of Health planned Diet–Heart Study, and the University Group Diabetes Program study of tolbutamide. Together these examples help to flesh out the story of this partial revolution. They also provide an insight into the tensions between researchers and general practitioners, and the impact of patient compliance on experimental design. It is possible to quibble that the story tells us less than we might wish to know about the nuts-and-bolts of therapeutic testing, and that Marks' assertion that this is a quintessentially American tale lacks a comparative perspective to nail the point home. These caveats aside, Marks has produced an important account of twentieth-century clinical medicine; conceptually sophisticated, and supported by a rich lode of footnotes. The cheaper edition of this book will ensure that future students can afford to mine the latter at their leisure.

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David Dranove, *The economic evolution of American health care: from Marcus Welby to managed care*, Princeton University Press, 2000, pp. 211, $27.95 (hardback 0-691-00693-8).

This is an economist's study of rapid change in a trillion-dollar industry—the healthcare business in the USA. It traces the evolution of medical care during the twentieth century from the traditional doctor (as represented in the 1960s American TV show, *Marcus Welby, MD*) to the present-day managed care organization. For the British reader, all too familiar with the shortcomings as well as the advantages of the National Health Service, this study of the merits and demerits of injecting business principles into health care is interesting and thought-provoking. However, the author's predilection for acronyms makes it a less than accessible read.

Under traditional health care, David Dranove argues that individual patients trusted in their doctor's professional disinterestedness, clinical competence, and ability to co-ordinate medical services. Physicians also had loyalty to their patients,