

of Thomas Percival". "There is", he informs us, "evidence to the contrary. In 1772... John Gregory... published... on... physicians'... duties" (p. 36). The error is Albarracín's: Gregory does indeed discuss the duties of physicians earlier than Percival, but *not* in the distinctive form of a *code*. The code format—a numbered compilation of moral rules of conduct—was introduced into English-language medical ethics by Percival. Here, for example, is an excerpt from Percival's Rule II.3, which deals with the ethics of diagnosing "incurable" conditions: "A physician should not be forward to make gloomy prognostications... by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail... to give to the friends of the patient, timely notice of danger... and even to the patient himself, if absolutely necessary.... For the physician should be minister of hope and comfort to the sick; that by such cordials to the drooping spirit, he may smooth the bed of death." It is a pity that Albarracín chose to engage in spurious scholarship instead of analysing what Gregory and Percival actually said about the ethics of diagnosis.

Darrel Amundsen's 'Some conceptual and methodological observations on the history and ethics of diagnosis' demonstrates the dangers of attempting to practise history *a priori*. Noting that "the ethics of diagnosis has not yet been isolated for special scrutiny as a circumscribed ethical category" in standard works on medical ethics, Amundsen asks "How... may the historian construct a meaningful history of ethics of diagnosis?" (p. 49). After a protracted analysis he hedges, but is essentially sceptical. He is misled, in part, by the expectation that diagnosis must deal with discrete diseases (as it has since the nineteenth century) rather than conditions (the norm from the Hippocratics through Percival). He is also deceived by the strong association between ethics and therapeutics in modern medicine. Knowing that, before the nineteenth century, medicine de-emphasized therapeutics and lacked a nosology with clearly delineated diseases, Amundsen is sceptical about the very possibility of a history of the ethics of diagnosis, *a priori*. In striking contrast, Laín-Entralgo approaches the question *a posteriori*. By re-examining the Hippocratic corpus he discovers injunctions governing diagnosis in the context of *prognosis*—and thereby uncovers an ethic that, as the rule from Percival's *Medical ethics* cited above illustrates, was still important in the early nineteenth century. The moral of this tale is that the history of medical ethics is a branch of history; it is thus inextricably wedded to empirical evidence— and even sceptical theories must be validated by such evidence.

These five mini-reviews should give the reader a sense of this volume. Its primary value is innovation: it is the first systematic exploration of the ethics of diagnosis. Some contributors were unequal to the task; others developed a conceptual framework for analysing an ethic of diagnosis and have begun to chart its history. Their work should assure *The ethics of diagnosis* a place on the shelves of any library seriously interested in medical ethics and/or the history of medicine.

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JAN GOLINSKI, *Science as public culture: chemistry and Enlightenment in Britain, 1760–1820*, Cambridge University Press, 1992, pp. xii, 342, £32.50, \$54.95 (0–521–39414–7).

The period from 1760 to 1820 was one of immense political and social turmoil in Europe. It was also one in which the science of chemistry underwent a transformation so profound that the phrase "chemical revolution" is not wholly inappropriate. In his ambitious book Jan Golinski takes a new look at British chemistry in this tumultuous era, particularly in relation to its public audience. Scotland receives one chapter, but the spotlight is chiefly on the English workers Joseph Priestley, Thomas Beddoes and Humphry Davy. Some new material is presented and use is made of much recent scholarship. With the aid of meticulous research, backed by careful documentation, the author has disclosed many hitherto unrecognised features of the scientific scene around 1800. Those interested in the history of medicine will find much of value in the accounts of pneumatic medicine, ranging from early experiments with nitrous oxide that did not acknowledge its analgesic potential (Beddoes and Davy) to the allegedly antiscorbutic properties of soda-water (Priestley and his successors).

The author claims that his approach is "sociological rather than conceptual, rhetorical rather than philosophical" (p. 66). This (together with the title) may alarm those aware of the limitations and hazards of such an approach, where so-called sociological insights into science may be unacceptably reductionist, self-contradictory, completely unverifiable or merely complicated ways of stating the

obvious. In fact the author does not wholly avoid any of these pitfalls. Yet, despite his professed agenda, the book is no turgid discourse in abstruse theory but, in the main, a stimulating and lively example of the social history of science. It is only in the more extreme genuflections towards sociology that the narrative wobbles and loses conviction.

One example must suffice. When Davy learned that the newly invented Voltaic pile could be used as an agent of electrolysis we are told “it had to be ‘black-boxed’—that is, transformed from a subject of experimental investigation into an unproblematic tool for further research”. (p. 206) It *had* to be shown that water is decomposed into hydrogen and oxygen only (as Davy did in 1807); otherwise the pile “could not function as an instrument of analysis at all”. But this is to confuse the nature of the “black box” (the pile) with its effects (electrolysis). Furthermore in two areas that Davy arguably regarded as most significant there was no evolution of hydrogen at all. One was a long series of experiments with what must have been a mercury cathode (where overvoltage precludes discharge of hydrogen ions); the other was his immensely important work on non-aqueous media as fused alkalis, from which sodium, potassium and other new elements were obtained. What was really determinative was Davy’s own electrochemical theory, not some rhetorical flourishes about the nature of the equipment. Then again, it is suggested that Davy’s quite sophisticated technical refinements, created from the generous resources of the Royal Institution, meant that “investigators who lacked these resources would no longer need to be taken seriously” (p. 212) and Davy’s authority would be unchallenged. But if that really were Davy’s intention it would eliminate what Golinski rightly and repeatedly asserts as a characteristic of acceptable science, its reproducibility (“replication”). And it is pure assumption that Davy had anything like this in mind.

The trouble with arguments like this is that they ignore the facts of scientific creativity and put the sociology of science into its own “black box” thereby creating another “unproblematic tool” whose basis is not to be questioned. However blemishes of this kind are relatively few and should not be allowed to deter even the most sceptical readers. The book is an account of far-reaching scientific discoveries skilfully woven within the rich tapestry of equally far-reaching social changes. It enables us to hear opinions of not only the famous but also the obscure, to re-examine the strategies of chemical researchers and to catch some glimpse of what it must really have been like to see science in action at such a time. To read it without prejudice can be a richly rewarding experience. It is warmly recommended.

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CHARLES G. ROLAND, *Courage under siege: starvation, disease and death in the Warsaw ghetto*, New York and Oxford, Oxford University Press, 1992, pp. x, 310, illus., \$30.00 (0-19-506285-X).

In the last world war the Jews of Eastern Europe were all but destroyed. Only a few thousand of the three million in Poland survived. Many lived in Warsaw where, a few months after their military victory in September 1939, the Germans created a ghetto. Half a million people were compressed into half a square mile. A wall was built and check points created. Anyone trying to get out without permission was liable to be shot. Conditions were intolerable and got worse, until in 1943 the Germans shot the few remaining Jews or sent them to Treblinka to be gassed. During the two and a half years of the ghetto, doctors, nurses and others tried to keep a medical service going in spite of hideous difficulties and shortages. They even managed to create a medical school for a year and to do research on starvation; there was no shortage of clinical material.

One would have thought that so little and so few survived that a detailed account of the ghetto would be impossible, but not so. Charles Roland has been able to read a large number of accounts and interview many survivors and witnesses, who provide an horrific record. The abomination of Nazi race policies applied to the death is familiar enough, but the story of children being killed is still sickening and incomprehensible. How could German doctors behave in the way that most of them did? The six years of Nazi propaganda proclaiming that Jews were sub-human seems to have done its work. But it was only six years—apparently enough to wash away everything that a doctor should stand for. The German medical record was not good.