physiologist's adherence to Pestalozzi's educational theories of "hands-on" experience, and his practical application of those concepts to higher scientific education. The University of Heidelberg and the efforts there of Carl Pfeuffer and Jacob Henle are placed by Tuchman against the background of liberal reforms initiated by the government of Baden, its utilitarian demands of the new educational system being exemplified by Henle's "rational" medicine with its emphasis on the acquisition of scientific knowledge and practical experience. In Leipzig, the similar belief, that a commanding lead in scientific knowledge was an essential component of state political and economic strength, was influential in allowing Carl Ludwig to establish his world-famous Institute. Equally important, according to Lenoir's assessment, was Ludwig's perception of the experimental laboratory as a vital constituent of clinical experience. This connection between physiology and medical practice, as indicated in the book's sub-title, is addressed more explicitly by Lesch in his essay on the Paris Academy of Medicine and Experimental Science from 1820 to 1848. He provides a detailed case-study of the debates about the fatality of accidentally introduced air in the pleural cavity and in venous blood, in which physiological experiments were performed to resolve clinical disputes about surgical procedures.

A different experimental departure, the active encouragement of collaboration between practitioners with different skills and outlooks, is detailed in Holmes's analysis of the Munich School of Metabolism. This group, although based in the Institute of Physiology, was not conterminous with it and here there is another shift in scale, as the technical and conceptual developments of the research school that grew around Justus Liebig, Theodor Bischoff, and Carl Voit are assessed.

These papers emphasize in different degrees the increasing reliance on specialized instrumentation, whether it be the kymograph, the microscope, or Pettenkofer's purpose-built metabolic chamber in Munich. This aspect is more specifically developed in Frank's chapter on cardiovascular physiology and recording techniques in the laboratory and in the clinic. Starting with Marey's sphygmograph and ending with Einthoven's string galvanometer, this paper cuts across the institutional framework chosen by the other contributors, and offers a broad view of the synergism between basic research and clinical diagnosis in the use and development of investigative techniques. It also charts the rise of the new breed of clinical scientist, represented by Thomas Lewis, thus neatly encapsulating the two main themes of the book—the rise of experimental physiology in the nineteenth century and its applicability to medical practice.

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This excellent introduction to voluntarism appears at an opportune moment. After a long period of decline voluntary agencies are once again capturing attention. The virtues of voluntarism are being extolled by our political masters to undermine public confidence in collectivism, while voluntary action has also emerged as a major defence mechanism among the advocates of the institutions of the welfare state. Frank Prochaska shows that voluntarism only momentarily declined. His review of events from the eighteenth century to the present draws attention to the common features of voluntary effort throughout this period, and he suggests that this activity serves an important bonding function in local communities, as well as providing for more dramatic pressure-group initiatives on a national scale.

The diversity and complexity of voluntarism create formidable difficulties for the author of a short introductory survey, especially when a broad chronological framework is adopted. The organizations considered by Prochaska range from the Society for Promoting Christian Knowledge (1698) to the recently-founded AIDS charities. Significantly, the SPCK and many other venerable charities have persisted to the present, usually in amalgamations, or with changes
of name. The author is faced with some difficulty in defining his subject matter. Only a few sentences are devoted to this question. His remit is taken as the "antithesis of collective or statutory authority", but within this framework of non-collective action, it is unclear where boundaries lie. Trade unions and friendly societies are excluded, but local charities of the friendly society type seem to be included. Major acts of individual philanthropy are excluded, but Nuffield and Wellcome are briefly mentioned. Voluntary agencies relating to health and social welfare occupy a dominant place in this account. Medical historians would have appreciated attention to the voluntary hospitals, charitable dispensaries, the hospital savings movement, and perhaps also the formidable voluntary effort devoted to social hygiene and mental health in the twentieth century. However, Prochaska's intelligent commentary contains many insights helpful to the understanding of charitable medical bodies not specifically mentioned in the text.

This book succeeds well in fulfilling the object of the series to provide short, informed studies in the evolution of current problems. It strikes the right balance between past and present. It is particularly gratifying that historical material is not devalued by use for merely exemplary or illustrative purposes. The author also avoids his text degenerating into a chronological catalogue of voluntary organizations. The first two historical chapters consider the rise of philanthropy in the eighteenth century, and local philanthropy in action, with special consideration of district visiting. These chapters elaborate on the Society for Bettering the Condition of the Poor and the Ranyard Mission, two particularly good choices, both of which are relevant to medical historians. There follows a short but helpful chapter on fund-raising. The final chapter, on the adaptation of voluntary effort in the twentieth century, is arguably the least successful. In particular it gives little sense of the relative and shifting balance between public and voluntary agencies in the field of welfare. Such minor deficiences do not detract significantly from the success of this excellent introduction to philanthropy and voluntary action.

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IAN KENNEDY, Treat me right: essays in medical law and ethics, Oxford, Clarendon Press, 1988, 8vo, pp. xvii, 375, £35.00.

Medical ethics is a fast-expanding field of study. This is doubtless as it should be, for, with the rolling back of the frontiers of what is technically possible in medicine, ethical problems multiply: may, or must, doctors do all they can do? Some of the studies produced in this relatively young sub-discipline appear, however, to be more interested in developing philosophically comprehensive discussions of moral dilemmas for their own sake, than in addressing themselves to practical problems in ways directly helpful to the medical profession and the sick alike. This charge of academic irrelevance cannot be laid against Ian Kennedy.

As is fully demonstrated in this volume—which brings together and updates essays published over the last decade and a half on the interface between medical ethics and medical law—Kennedy is profoundly committed to the notion that morally contested medical choices must be made and justified on the basis of good reasoned argument. But his ultimate goal is less to produce a watertight summa of medical ethics (a fatuous notion, he would argue, in a pluralist society in which values are changing as quickly as medicine itself), than to enter a plea that the good of the sick should always be given priority when difficult decisions have to be made. In too many of the contested medical cases that have reached the courts (as his razor-sharp and sometimes passionate discussions amply reveal), the professional interests of physicians, or the all-too-often antediluvian prejudices of eminent judges, or the wishes or authority of other third parties, have instead taken precedence.

Kennedy’s essays address a variety of issues faced by courts and legislators: must severely malformed neonates at all costs be kept alive? should euthanasia be legalized? when, if ever, may a doctor switch off a respirator? may doctors prescribe contraceptives to under-age girls? how far