

Book Reviews

enough to correct the proofs and to inscribe presentation cards for the author's copies which he instructed his publisher to send to his friends, among whom I was always proud to be counted.

Solly Zuckerman

RONALD L. NUMBERS and JUDITH WALZER LEAVITT (editors), *Wisconsin medicine. Historical perspectives*, Madison and London, University of Wisconsin Press, 1981, 8vo, pp. xi, 212, illus., \$18.50.

This is a collection of eleven papers delivered at a bicentennial symposium in 1976. Wisconsin, a State only since 1848, deserved such a study because it was not only typical for the Mid-west, but a medical pioneer in many respects. Early medicine was, of course, rural and dominated by malaria. Around 1900, the horse-and-buggy doctor began to be replaced by the telephone-and-automobile doctor. Progress in surgery made practice shift towards hospitals, and group practice began in 1916. The health problems of the cities were overcome by 1920. All this and the subjects of medical sects, societies, and education are discussed in the eleven contributions. The book is very well produced: use of sources, style, editing, bibliographies, index, and illustrations. It is primarily a social history of Wisconsin medicine. This is not surprising, as among the eleven authors is only one M.D. (six are graduate students); and impersonal social history of medicine is fashionable. As I wrote one of the first monographs in the social history of medicine fifty years ago, may I be allowed to plead for the rediscovery of the medical history of medicine? It exists too.

Erwin H. Ackerknecht
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UFFE J. JENSEN and ROM HARRÉ (editors), *The philosophy of evolution*, Brighton, Harvester Press, 1981, 8vo, pp. vii, 299, £22.50.

Darwinism has been with us for over 120 years, and other forms of evolutionism outstrip that period. Ever since Darwin dispatched his *Origin* to John Murray, philosophers have speculated about the range of phenomena which might be understood via an evolutionary perspective. Is there some kind of analogue of Darwinian evolution by natural selection controlling social change, for example? And, if so, then what are the analogues of mutation and selection? At a more abstract level, it is tempting to suppose that changes over time in the corpus of scientific knowledge (or belief) – changes like those involved in going from Copernicus to Kepler and from Newton to Einstein – constitute a definite evolution towards higher levels not of fitness, but of truth. Staying closer to Darwin, the philosopher sees that the basic model itself is not unproblematical – that there are all sorts of difficulties surrounding the meaning of “natural selection” and the question of what are the very units of selection. In other words, evolution presents philosophical issues at a variety of levels, and it is the merit of this book, based upon the contributions to an Aarhus symposium, that it tackles all the levels.

The number of essays (fifteen) and their diversity present a problem for the reviewer, but it is worth mentioning the essay by David Hull on the units of evolution, which is timely given Gould's recent reintroduction of the notion of species selection into evolutionary theory. Also notable is Harré's essay on the evolutionary analogy in social explanation, wherein he argues that the social analogues of genes are social rules. He concludes that despite the pitfalls facing anyone overlooking disanalogies between the social and the biological case, the use of the mutation/selection model is of value insofar as it allows the construction of explanations in the social sphere which do not entail a positive causality between the environment and practices adapted to it.

For the “pure” philosopher, the final section is the most exciting, comprising an essay by J. Mittelstrasse, followed by a debate between Laurens Laudan and Bill Newton-Smith on the thorny issue of whether, and, if so, in what way, scientific change may be regarded as taking us from a lesser to a greater truth. Laudan offers a “refutation of convergent realism” intended to show that it is better to see science as progressing by maximizing its problem-solving capacity

rather than as progressing by taking us ever closer to the truth. Newton-Smith, on the other hand, argues that while the classic Popperian argument for scientific change as the provider of increased verisimilitude falls down, the Laudanian position is no less untenable, and that there are, after all, non-Popperian arguments for seeing science as an evolution towards the truth.

Bernard Norton
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WOLFGANG HUEBNER, *Die Eigenschaften der Tierkreiszeichen in der Antike. Ihre Darstellung und Verwendung unter besonderer Berücksichtigung des Manilius*, (*Sudhoffs Archiv*, Supplement XXII), Wiesbaden, Steiner, 1982, 8vo, pp. xi, 646, DM. 218.00.

Astrology forms perhaps the most important complement to medical history. Indeed, it may serve as a guide illuminating the transition from traditional (ancient – medieval) to modern medicine. For this may be seen as the secular result of its rejection – starting with (though still ambiguous) statements of Paracelsus and definitely pronounced without compromise by Van Helmont (1648). Here the *astra* are strictly left by themselves in the sky – they are to us mere signals indicating clock-time and seasons, but without any “influence” or “significance” concerning “life, body or fortune”. In other words, they are merely pointers to that cosmic “necessity” to which *everybody* is subjected, whatever his *individual* complexion or fate – *astra necessitant, non inclinant*. To understand the medical theory and practice that had gone before and was to survive in some form or other even today we have to re-think in ancient astrological terms in order to make sense notably of the bulky source-material on venesection and critical days in prognosis; the latter was one of the columns of Hippocratic medicine which was heeded by such an eminent modern clinician as Traube. In all this knowledge of the zodiac, and qualities attributed to each of its “signs” in itself and its influences on a certain individual, is essential. The number of pertinent sources and variants is legion and the work under notice provides their first and fundamental synopsis and synthesis. The result is a *corpus*, a systematic reference work of the first order including new texts and commentaries to which no justice can be done in the present frame and available space. The key-figure in all this remains Manilius of the Augustan age (early first century A.D.) with his poetical *Astronomica* as based on the earlier, but much less explicit work of Aratus, a protégé of the Egyptian Ptolemy Philadelphus in the first half of the third century B.C. It was Manilius who clearly separated the qualities of the zodiacal signs from their influences and effects. Astrology had, of course, its cradle in Babylon, and spread to Egypt and the Roman empire; it reached India. Through Persian and Arabic influence it re-entered Europe via Sicily and Spain to find new fertile soil in the artistic, scientific, and philosophical movement of the Renaissance when equally older objections to it were vigorously propounded. For our knowledge of this development the Arabic transmission of Greek sources was decisive, notably through such perennially influential authors as Albumasar, Abenragel, Alcabitus, the book *Picatrix*, and many others. Additionally, Indian and Syriac sources can now claim attention in this respect. Of new texts here presented, one in Greek deals with venesection and purgation. Diseases and their astrological complements naturally occupy much attention and space – particularly a detailed differentiation of diseases of the skin including fistulae and alopecia. Indeed, this book provides an essential tool for the historian of medicine and science.

Walter Pagel

ERICH DINKLER, *Christus und Asklepios*, Heidelberg, Carl Winter Universitätsverlag, 1980, 8vo, pp. 40, illus., [no price stated], (paperback).

This suggestive study of two Christian painted reliefs from Rome of c. A.D. 300 illustrates well the Christian takeover of motifs from pagan healing cults, particularly that of Asclepius. Even if Dinkler's main contention, that the types of the bearded Christ the healer and of the miracle-working apostle come from statues of Asclepius, perhaps from Pergamum, cannot be proved for certain, he is right to set it within the context of a struggle between competing healing cults. A century ago, Adolf von Harnack drew attention to the literary evidence for the assimilation