

or emotionally less mature, but people who are the consumers likely to be at the greatest risk both of suffering drug-related mishaps and of not receiving suitable medication for treatable conditions. This is where health promotion must now be directed, and vigorously.

In addition, the volume does not adequately examine the consequences that national government policies have on the processes of medicine provision throughout the world. It is increasingly important that political interests are not exercised in areas such as drug registration, for example, where they could pass without the loud critical comment so often directed at academic, professional and commercial bodies.

But these cautions apart, the volume remains a worthwhile achievement. Lumbroso's essay on the introduction of new drugs and the problems faced by clinical trial organizers is of particular value. So too is Catherine Stenzl's concise chapter on the role of international organizations in medicine policy. Herxheimer and Lionel provide a sensible closing contribution on coherent policy formation, outlining the difficulties present and options open both nationally and internationally. It is with respect to the issues surrounding the latter area that the main messages of the book are to be drawn.

In the countries of the developed world, the home ground of pharmacological innovation, we have moved in the past few decades to a delicate balance between rival public, commercial, professional and governmental interests. "Structural maturity" may still not be fully established but the problems that are left are minor compared with those of 30, or even 20, years ago. In the rich world, at least, the contention that we are "reasonably well served by our drug providers" is now an entirely legitimate one.

Yet in the industrially less developed nations the situation is not so satisfactory. Not only are half or two-thirds of the people deprived of modern medication in more or less any form; but those who can obtain drugs do so in a local environment in which they may be open to many forms of harmful practice. These may be a result not only of ignorance, or lack of regulation, but also corruption — commercial, political and professional. In my view this is the central problem which drug providers throughout the world must face up to in the 1980s.

In his preface Dr T.A. Lambo, Deputy Director, WHO, says,

By my lights the reader [of this book] will be every government authority anywhere concerned with drug policy, anyone teaching clinical pharmacology, all concerned with cultural or social medicine, or medical economics, and most certainly my own

colleagues at every level who attend to international issues and collaboration in health affairs.

It certainly covers a very important subject — health policy. Those of us involved like to believe the quality of our work, of the decisions we make, the regulations we frame, the ethical motivation we achieve in the whole pharmaceutical process, are good indices of the quality of the society we seek to serve. The great trick from now on will be not simply to take care of the geese that lay the golden eggs — whether you regard those geese as the minds in the laboratory or the firms who develop and the clinicians who try the new medicines. It must also include ensuring that the eggs are safe for the children playing in the farmyard and — dare one use an old word? — that the charitable impulse of the medical and allied professions will prevail when the eggs get to the market places. All this is a complex network but there is no textbook for those involved. This slim volume will give newcomers valuable check lists based on the surveillance that the distinguished contributors have been maintaining. □

Sir John Butterfield is Regius Professor of Physic at the University of Cambridge.

Great matters

Charles F. Kennel

Cosmic Plasma. By Hannes Alfvén. Pp.164. ISBN 90-277-1151-8. (Reidel:1981.) Dfl.75, \$39.50.

HANNES Alfvén's *Cosmic Plasma* is a highly individualistic essay about many topics central to contemporary space physics, astrophysics and cosmology. It deals with laboratory studies of cosmic plasma processes; the Earth's magnetosphere, ionosphere and aurora; Venus's magnetosphere; the solar wind and heliosphere; comets; the origin of the Solar System; interstellar clouds; cosmic rays; the question of antimatter in the Universe (to paraphrase Fermi: where is it?); quasi-stellar objects; and the expanding Universe. Alfvén's often rebelliously unconventional treatment of these topics leads him to conclude that plasma physics rules the behaviour of the Universe much more than is generally appreciated.

A basic premise of *Cosmic Plasma* is that our knowledge of laboratory and Solar System plasma physics must inform our understanding of more distant plasmas that we can neither manipulate nor probe *in situ*. To Alfvén, it is striking that spacecraft observe very different states of plasma separated by thin, stable current layers. We have learned, he says, that Solar System plasmas, and by implication all

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Erratum: the price of the paperback edition of *Principles of Neural Science* (reviewed in *Nature* 295, 474; 1982) is £19.95, not £25.50.