

explanation. He attempts an *a priori* rejection of the atomic theory of matter in favour of a field theory and he says that his metaphysical views are closest to those of Faraday.

How successful is this ambitious attempt? There is no doubt that the notion of the inner constitution of things is asked to bear more than it can. It cannot help us to understand causal necessity or to establish, against Hume's arguments, that there is any such thing. Harré's attempt to answer Hume's criticism of the notion is very unconvincing indeed (pages 105–111). Nor, without some change of view about the nature of justification or of knowledge, is the fact that things have an inner constitution much help with the problem of induction. First, it does no more than replace the problem of the justifiability of inductive argument with that of the justifiability of argument by analogy. Second, for basic hypotheses such as some of those of mechanics, no acceptable explanation in terms of inner structure has been proposed to help us choose between the alternative hypotheses left open by induction from experimental instances. Harré is forced to relegate such principles as the law of impact, which stand as firm as any in science, to the status of protolaws. Further, although many scientific explanations do rest upon the inner constitution of things, and Harré is right to feel dissatisfaction with the positivist account of such explanation, it is not clear that all do. The principle of the lever is the basis of many explanations but has no concern with inner mechanisms.

There is one feature of the deductivist philosophy which is regrettably absent from Harré's own. The paradoxes in Hempel's rules of confirmation became apparent because those rules were formulated precisely. Harré not only eschews precise formulation of the principles of analogy which he thinks must replace the principles of induction (page 35), but is prepared to embrace principles, such as affirmation of the consequent, which lead to paradoxes just as serious as those of Goodman and Hempel and much more obvious.

The proof reading has been done very carelessly but, in recompense, there is an extremely useful bibliography.

JOHN WATLING

Tropical Medicine

Tropical Doctor: a Journal of Modern Medical Practice. Volume 1, Number 1. Edited by Dr Hugh Clegg. Quarterly. (Royal Society of Medicine: London, January 1971.) 60s annually; 15s each copy.

THE provision of adequate health services for developing countries is a task of

paramount importance and great difficulty in the face of the continued shortage of professional and auxiliary medical staff. There can be no permanent improvement in the present conditions unless the highest possible priority is given to the training of large numbers of health workers of every description.

Many newly independent nations embarked on the development of full scale medical schools while fully realizing that during the next decade or so, the number of graduates cannot be more than a trickle. But mere numbers of graduates is not enough. There is also the need to maintain the quality of medical practitioners—especially those who work in distant rural areas without an easy access to the medical books and journals that characterizes the present "information explosion". *Tropical Doctor*, fathered, carried to term and skilfully delivered by its editor Dr Hugh Clegg, under the auspices of the Royal Society of Medicine and with the assistance of the Commonwealth Foundation, aims at filling this gap in communication. It is being produced primarily for the benefit of the isolated medical worker who is responsible for a large number of people; he cannot decline this mandate without depriving them of their only source of medical help. Much of the medical practice in the tropics is subject to stagnation because of the remoteness of the under-doctored areas. And yet the man in the field must not only retain his original skill, but must acquire new knowledge of the advancing science and technology applied to medicine and public health.

The first issue of *Tropical Doctor* fulfils brilliantly its promise. The contributors to it come from many parts of the world. Chaudhuri from the School of Tropical Medicine in Calcutta provides an informative paper on the treatment of cholera; Khoo Oon Teik of Singapore deals with lobar pneumonia as seen in the tropics; Burkitt of London outlines the diagnosis and treatment of the tumour that bears his name; Norman from the United Arab Republic writes about hookworm, Wosorun from Accra and Adelaye from Ibadan discuss the management of burns and head injuries respectively; Cook talks about tropical ulcer and Farman about general anaesthesia.

In the series of special reports there are excellent papers on maternity care in the tropics; on control and eradication of smallpox, on "under fives clinics" and on surgical improvisation in the Pacific. "Newsletters" and replies to "Any Questions" are signed by many distinguished names. There are also two shorter sections on drugs and equipment and finally "News and Notes".

The attractive cover of the journal, its excellent layout, its clear print and

illustrations are bound to enlist many faithful subscribers and readers.

L. J. BRUCE-CHWATT

African Birds

Birds of West Central and Western Africa. By C. W. Mackworth-Praed and C. H. B. Grant. (African Handbook of Birds, Series III, Volume 1.) Pp. xxvii + 671 + 46 plates. (Longman: London, 1970.) 120s.

THE surviving author is to be congratulated on having so nearly completed the ambitious task undertaken 48 years ago; this is the penultimate volume of the six that were planned, and the final one is understood to be well on the way. Captain Grant died in 1958 but had already done much preliminary work even for this last stage. The aim was to provide a work covering all the birds of Africa south of about 20° N latitude. There were to be three series of two volumes apiece, each series constituting an independent regional account. The first dealt with eastern and north-eastern Africa and the second with the southern third of Africa; this one covers west central and western Africa, from southern Mauritania down to the Congo-Zambesi divide in Angola. This area is much more extensive than that covered by either Bannerman's *Birds of Tropical West Africa* (1930–51) or Chapin's *Birds of the Belgian Congo* (1932–54).

The plan inevitably involves substantial overlap between the different series, many species being common to two or all three of the regions. It has thus been necessary, for the sake of consistency, to deal conservatively with changes in nomenclature and new views on taxonomy that have arisen since the earlier volumes were published. The information about individual species and subspecies is on the same lines as before; the stress is on identification and distribution, with brief treatment of chief points of life history and behaviour. There are the same marginal drawings of birds, as well as the colour plates by a number of experienced bird artists; and the same useful distribution maps. Dr W. Serle, with personal experience of this side of the continent, contributes an introductory section on topography and climate.

A. LANDSBOROUGH THOMSON

Antarctic Ecosystems

Antarctic Ecology. Vols. 1 and 2. Edited by M. W. Holdgate. Pp. xx + 604 and x + 607–998. (Academic: London and New York, 1970. Published for the Scientific Committee on Antarctic Research.) 120s and 100s.

THESE are model symposium volumes, well edited and with a strong and coherent theme. They include 81 papers