

and varied physical causes were related to identical psychotic disorders. In this way Karl Bonhoeffer was led to formulate the 'acute exogenous mental reaction type', with which his name will remain associated in medical history. FELIX POST.

N.A.M.H. and W.F.M.H.

Progress in Mental Health. Edited by HUGH FREEMAN. J. A. Churchill Ltd. 1969. Pp. 346. Price 60s.

This volume contains a selection of papers from the Proceedings of the Seventh International Congress on Mental Health, organized in London in August 1968 by the National Association for Mental Health on behalf of the World Federation for Mental Health. The Congress was attended by nearly two thousand lay and professional delegates from all over the world and from many different backgrounds. The authors of these papers, for instance, include psychiatrists, nurses, social workers, anthropologists and sociologists.

Forty-nine papers are presented here under the seven headings of Conflict, Social and Cultural Aspects, Public Attitudes and Education, Children and Young People, Professional Education, Clinical Aspects and Services, and Theoretical Aspects.

To appreciate the reason for the nature and variety of these papers it is necessary to be familiar with the aims and interests of the World Federation for Mental Health. In the words of its President, Professor Maurice Carstairs, it is 'a league of voluntary bodies concerned with one (though crucially important) aspect of health, but also with the much wider theme of fullest development and realization of human potentialities. Being non-governmental we are free to act as a pressure group in aid of the causes we support. We are able to do this in spite of our extremely modest financial resources because we are able to enlist the help of influential citizens, leaders in the mental health professions and in other walks of life, in all our member countries.'

It would be unfair to apply to the contents of this volume the standards of criticism usually applied to papers in scientific journals, since most of them are sketches of current views on a topic, or brief summaries of recent research. They are clearly designed to acquaint the reader with a few major points and conclusions rather than to present information in detail. A few papers, particularly those by non-clinical delegates, in the sections on 'Conflict' and 'Theoretical Aspects' are of more usual length, and make interesting reading for anyone interested in the theoretical fringes of psychiatry.

This book can be recommended as providing a

good picture of the scope of the National Association of Mental Health and the World Federation for Mental Health, and almost everyone is bound to find something of interest within its compass.

J. E. COOPER.

HANOVER'S COMPLAINT

George III and the Mad-Business. By IDA MACALPINE and RICHARD HUNTER. Allen Lane. The Penguin Press. 1969. Pp. 407. Price 70s.

This book is an expansion and elaboration of earlier articles on the illness of George III. The authors' thesis is now well-known. It is that the king suffered from the variegated form of porphyria (the earlier diagnosis of acute intermittent porphyria has been altered) and that he inherited the dominant gene responsible for this condition along the direct line of succession from Mary Queen of Scots. When the articles were first published in the *British Medical Journal*, there followed a long and sometimes acrimonious correspondence in which experts took sides for and against the theory. Dissenting views were notably expressed by Professor Dent and by Dr. Geoffrey Dean—probably one of the world's leading authorities on the subject. The latter is on record as being prepared to eat his hat if the authors' case were substantiated. Important objections were raised on clinical, genetic and biochemical grounds, but the reader of the book is given no inkling of this and might well be misled into too easy acceptance of the diagnosis. The comments quoted on the dust jacket are characteristic. 'Any lingering doubt that George III was not mad' (*sic*) proclaims *The Times*, 'but suffered from . . . porphyria . . . would appear to have been finally laid to rest.'

The authors now claim that four living descendants of George III have been diagnosed as suffering from variegated porphyria, but they do not give any clinical or biochemical information to support this. While it is understandable that they should be discreet about revealing any details that might lead the sufferers to be identified, is it too much to ask for the biochemical composition of their noble excrement, since we are told that it was examined 'by modern methods'? Nor can the authors claim to have presented these data elsewhere; in a previous paper the cases of two descendants of George II were reported, but these were quite inadequately documented; in one we were asked to accept the diagnosis of a 'distinguished physician' while in the other the biochemical results given indicate mild deviations from the normal often found in healthy subjects. Curiously enough, these cases are not included in the present book.

From the psychiatric point of view the major objection to accepting the diagnosis is the length of the final illness, 1810–1820. The authors attempt to avoid this difficulty by suggesting that this last phase was due to 'senility'. If that were so, one would not have expected the king to have lived for as long as he did.

Historical diagnosis is a diverting game which we must all be allowed to indulge in from time to time. However, it is an essentially trivial matter which is usually impossible to resolve. Much more serious are the underlying assumptions which run through this book. The first concerns the supposed culpability of psychiatric patients. We are asked to believe that if a patient is diagnosed as suffering from an unexplained illness such as manic-depressive psychosis or from a neurotic disorder he is being 'maligned', whereas if he is found to have a known biochemical disturbance he is 'not mad' and only the unfortunate object of an accident of heredity. The second assumption is that some lessons can be learnt from these diagnostic exercises. 'The royal malady' they tell us 'may perhaps again—as in 1788—serve psychiatry by indicating the direction of its future progress.' Brave words, but what do they really mean? Should we be screening all our patients for porphyria? Or should we be concentrating all our efforts into biochemical research?

I have dealt at some length with the discussion of George III's diagnosis because this constitutes the main part of this book. However, the most interesting and least contentious chapters are those which deal with Georgian psychiatry, the political consequences of the king's madness and its impact on social policy. The excellence of this section makes it all the more regrettable that the authors ever took that course in biochemistry without tears.

RAYMOND LEVY.

WHAT MAKES REINFORCERS REINFORCE?

Human Motivation. By M. D. VERNON. London: Cambridge University Press. 1969. Pp. 190. Price 45s.

Professor Vernon's book fills a definite gap in psychological literature and is sure to be widely read. (It is also issued as a paperback.) Many psychologists regard motivation as one of the key processes among the determinants of behaviour; the experiments carried out in the field, however, have been done mainly with animals and have studied very simple drives such as hunger.

Professor Vernon, who has not previously written on the subject, considers that we can learn little about human motivation from the vast literature

on animal instincts and drives. Behaviour in humans is less reflex, less instinctive, and much less stereotyped than in animals. Moreover, specific organismic states cannot be associated with a great deal of human behaviour which is obviously motivated. The author therefore has ample justification for wide consideration of biological, subjective and environmental factors, organizing the compendious information available in ten separate areas: The nature of motivation (instinct and drive); motivation in children; biological needs (homeostasis, sexual and maternal behaviour); emergency reactions (fear and fight); emotions; activation and arousal; social motivation (group membership, affiliation, conformity, power and dominance); Goal-directed behaviour (interests, sentiments, level of aspiration, achievement motivation); frustration and conflict.

Very many studies have been abstracted, which makes the book particularly useful as a reference work. Some important information has had to be severely compressed; the 'Freudian theory of instincts' is dispatched in a single page (p. 44). The report of one investigation follows so precipitately on another that at times the reader is brought low by mental ataxia. Unfortunately the 'Index of Authors' is confined to those workers whom Professor Vernon refers to by name in her text; those represented by numerals can be found only by searching through the unalphabetical bibliography compiled separately for each chapter. The section of the book headed 'Notes and References' provides only the latter.

Professor Vernon scarcely discusses theories of motivation. Her reason is that they are largely irrelevant to human motivation. In general it may be said that motivation is concerned with the drives leading to behaviour, and with reinforcements which affect goal-directed behaviour positively or negatively. The book has an informative chapter on drives—in modern psychology the concept of drive has been modified to refer to the energy which makes an activity occur, regardless of what goal the activity leads to. (The term 'goal' or 'incentive' is used to refer to the environmental circumstances influencing behaviour—a goal denotes the end-result of an act.) The book also has a chapter on goal-direction, by which is implied the purposive aspects of behaviour. One of the central problems in the study of motivation is the way in which behaviour becomes organized in relation to goals. Theoretical considerations of the interrelationship between drive and incentive would appear to be highly relevant to the book's purpose.

Skinner, to whom Professor Vernon does not refer, has shown how behaviour becomes goal-directed as a result of prior reinforcement. A reinforcer is an event which occurs immediately after