and at intelligence tests. In a majority of cases we do not know why.

The lifetime of this text has also seen a change in the style of approach to this social problem. Instead of the original single author there is now a team headed by two psychiatrists at University College Hospital with the assistance of Professor D. A. Pond at the London and the co-operation of two colleagues at St. Lawrence's Hospital and Botley's Park. Professor J. F. Smith, also at University College Hospital, contributes his special knowledge of morbid anatomy and Drs. E. W. Dunkley and W. R. Trotter of the same hospital complete the medical team. The multidisciplinary aspect is provided by Grace Rawlings, consultant psychologist, and B. C. Marshall, social worker. In view of present controversies it is interesting that the team remains solidly psychiatrically orientated. The connexion of the book with U.C.H. and the London is important because it implies a proper recognition of this neglected subject by the psychiatric departments at those teaching hospitals.

The eleventh edition of the book embodies many of the changes which have taken place in this rapidly changing and expanding field. There are still some outdated features such as the line drawings of cells in "amentia," which are doubtless retained out of respect for the original author who owed this concept of cellular pathology to Sir Frederick Mott. They are more suitable for a historical text, and could be replaced by further photographs showing the histology of gliosis and ulegyria which are the commonest changes in the brain of the severely retarded.

BRIAN KIRMAN.

Metabolism of Lipids

Comprehensive Biochemistry: Vol. 18. Lipid Metabolism. Ed. Marcel Florkin and Elmer H. Stotz. (Pp. 398; 180s.) Elsevier. 1970.

In editing *Comprehensive Biochemistry*, which will eventually consist of 31 volumes, Florkin and Stotz are trying to solve the formidable problem of covering the whole of modern biochemistry in depth. Biochemistry has now grown to such proportions that the standard one-volume textbook can hardly provide more than a general introduction to the subject. The first 16 volumes of this treatise, which began publication in 1962, dealt with the physical and chemical aspects of biological substances, including the mechanisms of biochemical reactions.

Volume 18 is the second of a set of five volumes dealing with metabolism, and should be read in conjunction with Volume 6 (*Chemistry of Biological Compounds; Lipids and Amino Acids and Related Compounds*, 1965). Time alone will show how far *Comprehensive Biochemistry* is a satisfactory substitute for a general textbook supplemented by special articles from one of the many "Annual Review" or "Recent Advances" series, which now provide the student and research worker with contemporary accounts of every aspect of biochemistry. Almost certainly the earlier volumes will outlast the later ones dealing with metabolism. This is no fault of the authors whom the editors have chosen; it is simply a consequence of the fact that our understanding of metabolism will continue to change rapidly, whereas ideas about the structural and physical chemistry of biological substances are unlikely to undergo any marked change during the next few years.

The volume under review contains 10 chapters which deal with fat absorption, mobilization and transport of fatty acids, the plasma triglycerides, triglyceride synthesis, phospholipid metabolism, bacterial lipid metabolism, ganglioside metabolism, plant fatty acids, lipid metabolism in nervous tissue, and fatty acid oxidation. A chapter by Salih Wakil, which will include a discussion of fatty acid synthesis in mammalian tissues, is to be published separately as part of a supplementary volume. Except for this one omission, Volume 18 provides the reader with a collection of review essays chosen in such a way as to cover all the more important aspects of the metabolism of lipids other than steroids. All the authors are leading workers in their respective fields, and have clearly been at pains to make their articles comprehensive without being mere catalogues of undigested facts. Most of the chapters are well written and one or two, particularly the chapter by L. Svennerholm on ganglioside metabolism and that by A. N. Davison on lipid metabolism in nervous tissue, are outstanding. Despite the fact that 11 authors have contributed to this volume there is very little overlap between the different chapters. Perhaps the least satisfactory aspect of the arrangement of this volume as a whole is the separation of "Mobilization, Transport and Utilization of Free Fatty Acids" from "Fatty Acid Oxidation." These topics are discussed in separate chapters by different authors, and this has led to some avoidable repetition and to an illogical separation of the discussion of ketosis from that of the hormonal control of fat mobilization.

Undoubtedly this book will be acquired by every science library catering for biomedical scientists, but it can also be recommended to the individual specialist who has the necessary £9 to spare.

N. B. MYANT.

Civilizations and Doctors

Medicine and Culture. Ed. F. N. L. Poynter, M.D. (Pp. 322; 60s.) Wellcome Institute. 1970.

This book contains the proceedings of a symposium organized jointly by the Wellcome Institute of the History of Medicine, London, and the Wenner-Gren Foundation for Anthropological Research, New York. The meetings, held in September 1966, were presided over by Lord Cohen of Birkenhead. The difficult task of editing the proceedings has been skilfully performed by Dr. F. N. L. Poynter.

The papers and discussions were very stimulating and covered a wide field—perhaps a little too wide for a single symposium. This was hinted at in the address given by Sir Geoffrey Vickers who said "I never read three words more provocative than the title of this meeting. It sets as many hares running as a shot on the downs in March." It was generally agreed that improvements in education were required in order to improve general culture, and Sir George Pickering dealt eloquently with the vital need for changes in the educational programme. That educational changes were necessary was agreed by Professor Douglas Hubble, but his views on the form they should take did not coincide with Sir George's.

Sir Aubrey Lewis, in his usual clear manner, dealt with the importance of general culture in diagnosing and treating certain psychiatric diseases—example, schizophrenia. He also expressed the encouraging hope that in the future some drug or drugs may be found that may prevent, or even cure, some psychiatric diseases and so improve the general culture. The varying reception on the part of the consumer (the patient) of the latest modern medical treatment was discussed by Professor Richard Titmuss. As an example, he compared the large proportion of patients in the U.S.A. who paid for any human blood they needed (amounting sometimes to large sums of money) with the large proportion of patients in Britain who were given necessary blood, free of charge, obtained from voluntary (free) sources in Britain.

Two valuable papers dealt respectively with medicine as now practised in China and India. In both these vast countries the old medical tradition exists alongside modern medical centres. Among other topics Joseph Needham, an erudite scholar, discussed the ancient Chinese system of treatment by "needling" that has survived the introduction of modern medicine and surgery, and claims successes that are not easy to explain. The same was true of India, where modern technological methods are widely practised in large cities, while in many country districts the old traditional methods still persist.

A study of this volume leads to the conclusion that from time immemorial every cultural stage of civilization has had some influence upon the practice of medicine existing at the time; and that similarly, though usually to a lesser extent, the medicine of every successive period has influenced the prevailing culture. If this conclusion be correct it should be a very strong argument to persuade medical students and general historians to make themselves acquainted with the history of medicine.

ZACHARY COPE.