Thomas and F. Znaniecki; and it was pushed into the limelight by G. W. Allport's studies of personality in 1935. The passage of four decades since then, and the hundreds of papers on the subject cited by Dr Lemon, leave the sceptical reader with the suspicion that there is not a great deal to show for all this effort. Dr Lemon does not turn a blind eye to the critics, and he is acutely aware of what he calls "the widening gulf between the increasing sophistication of measurement and the relatively crude conceptualisation on which it is based". He treats attitude as an inference from observations, a latent process, a so-called "intervening variable". It is not, in his view, merely a descriptive expression to be defined as "the probability of occurrence of defined behaviour in a definite situation".

Whatever the explanatory merits of the concept, it must be conceded that Dr Lemon has taken pains with this work. He has immersed himself in the literature, and mastered a wide range of techniques of 'measurement'. He deals with the underlying logic of the subject, with self-administered inventories, with indirect assessment procedures, with the structure of attitudes, and with models of scaling stimuli and responses.

While praising the author's commendable skill in cogent presentation, I nevertheless still wonder how he has succeeded in allaying his own misgivings as to "crude conceptualisation". And the sceptic, whose reservations are not dispelled by a display of technical virtuosity, will continue to seek more convincing explanations of social behaviour.

JOHN COHEN

Enzymes attached

Immobilized Enzymes. By O. R. Zabor-sky. Pp. 175. (CRC Press: Cleveland, 1973.) \$26.50.

DURING the past decade, many hundreds of scientific papers and tens of reviews, some good, others bad, have been published on immobilised enzymes. Here for the first time is a comprehensive book giving a reasonably balanced and objective survey of the subject.

Much of the published work has been concerned with immobilisation techniques and this is reflected in this book, almost two thirds of which are devoted to chapters describing the various techniques for immobilisation: covalent attachment, intermolecular cross-linking, adsorption, entrapment, microencapsulation and containment by semipermeable membranes. In each of these chapters, many individual methods are given, and the properties of the resulting products are described. The remaining chapters are on enzyme reactors, applications and related topics.

The scientific literature, including patents, is covered in detail up till the end of 1971. With so many scientific publications on immobilised enzymes appearing in the last two years, it is inevitable that certain aspects, for instance treatments of diffusional limitation and reactor operation, are already out of date. Lists of more recent literature are, however, available from the Corning Glass Company, USA. The chapter on applications, both industrial and analytical, inevitably is rather short of data, and as the author points out is not a true reflection of the work that has been done in industrial laboratories which in some cases is far ahead of anything published.

Nevertheless, this is an excellent book and is recommended as a useful introduction and guide for anyone wishing to acquaint himself with immobilised enzymes.

M. D. LILLY

Blue-green biology

The Biology of Blue-Green Algae. Edited by N. G. Carr and B. A. Whitton. Pp. x+676. (Blackwell Scientific: London; University of California: Berkely, 1973.) £13.50.

The Blue-Green Algae. By G. E. Fogg, W. D. P. Stewart, P. Fay and A. E. Walsby. Pp. ii+459. (Academic: London and New York, November 1973.) £8.50; \$24.

IN times past it was usual to seek specialised information about the 'biology' of a group of organisms from ancillary sections in a major work on taxonomy, structure and reproduction. The algae were no exception, but the growing number and specialisation of biological disciplines has led to greater dependence upon reviews and occasional multi-author monographs or compendia with emphasis upon physiology, biochemistry, ecology, genetics and fine structure. The first book is a good example of the latter: with 26 contributors it has a pleasantly international flavour. In this respect, and in size and coverage, it differs from the only previously comparable work, edited by Federov and Telitchenko and published (1964) in Russian under the same title.

The 25 chapters, and 4 appendices (on cultures), are often written with considerable individuality and personal outlook—the fascinating contribution on ecology in hot springs by Castenholz is a notable example. As the editors admit, the coverage of the entire subject is uneven; some important fields (such as mineral nutrition, kinetics of growth and photosynthesis) receive only passing mention, although some specialised topics are treated in detail. The single bibliography and subject plus organism indices are valuable features, but the

book is basically a collection of independent, authoritative reviews. It constitutes an excellent and readable source of information on very many topics of the relevant biology: for a really integrated account, the reader must turn elsewhere.

He could not do better than to read the second book, *The Blue-green Algae*. Although written by four authors, their contributions merge into an organised pattern of topics and coherent style wherein preferences of individuals can only be recognised by the *cognoscenti*. The brief introduction should stimulate, after which a course is steered through three main phases of structure, physiology and ecology. An early chapter on general form and structure will be the more familiar classical area, and an essential foundation, after which deeper and more recently charted waters are traversed. First appears fine structure, and then aspects of cell physiology. Overall physiology is expressed in a chapter on culture, nutrition and growth, after which follow aspects of metabolism (photosynthesis and chemosynthesis, heterotrophy and respiration and nitrogen metabolism). Structural aspects again come to the fore briefly in an account of reproduction and cellular differentiation, but the rest of the book deals extensively with external relations—in ecology (freshwater, marine and terrestrial), pathogens and symbiotic associations. The exposition is clear and authoritative, the illustrations and figures numerous and helpful, the bibliography excellent for both classic and modern work. In the book's 'connective tissue', linking intensively studied 'nodes' of structure, physiology and ecology, speculation is frequent and enticing—the discussions of vertical stratification in ecology, of plastid origin, and of early evolution provide examples.

The two books are complementary as well as overlapping: though the second is a balanced unity, the first contains more detailed accounts of some topics. The coverage achieved will be the envy of addicts to other groups of algae, and the remarkable array of biological characteristics presented will surprise many. To both works is the comment (on the first) of T. D. Brock apt—"the blue-green algae finally come into their own".

J. F. TALLING

Bigger means better

Evolution of the Brain and Intelligence. By Harry J. Jerison. Pp. xiv+482. (Academic: New York and London, December 1973.) \$25; £11.75.

THIS book covers the evolutionary development of the vertebrate brain. The author's views are expressed very clearly and the whole is well illustrated. A large number of tables and graphs gather to-