

Book Reviews

H. D. Ellis, M. A. Jeeves, F. Newcombe, & A. Young (Eds.)

Aspects of Face Processing.

Dordrecht: Martinus Nijhoff, 1986.

Pp. 509.

Reviewed by Gill Rhodes.

Imagine the next New Zealand Psychological Society conference funded by the New Zealand Armed Forces. An absurd idea? Unfortunately not: Military funding of conferences and research is becoming commonplace. *Aspects of Face Processing* is the published proceedings of a NATO (North Atlantic Treaty Organization) sponsored conference on "the face as a psychological stimulus".

In the opening chapter Hayden Ellis sets the scene by raising ten questions about face processing. All are old favourites. Examples: Are faces unique? What can we learn from disorders in face recognition? Are identity and expression analysis separable? Happily many of these questions are beginning to receive clear answers. As a result, faces are currently a hot topic and with 45 contributors from both sides of the Atlantic this book offers a good selection of the available fare.

Major topics covered are the perception and recognition of faces (sections on perceptual processes, memory processes, cognitive processes and socio-cognitive processes), facial expressions, neuropsychology of face processing (sections on cortical specialisation, prosopagnosias and brain pathology), and a section on forensic applications and the use of computers in research and applied settings. Sections consist of 3-7 papers, which vary enormously in quality.

General themes emerging from the conference are discussed by Jeeves in the final chapter. He notes that communication between cognitive psychologists and neuropsychologists is proving invaluable in building models of face processing. Prosopagnosia, the inability to recognize familiar faces (even one's own), is a pivotal phenomenon in this respect: It can tell us about how faces are processed, whether

they are special, and whether expression is perceived independently from identity. Also apparent is the proliferation of models of face processing based on analysis of the information processing requirements of face perception and recognition, and in particular on Marr's computational model of vision. It remains to be seen, however, how fruitful these models will be in guiding research, especially in light of the fact that faces are particularly problematic for Marr's model.

The old adage about too many cooks apparently applies to editors as well and with four of them, this volume is not so much edited as collated. The chapters, some of which are very badly written, appear in a comprehensive range of typefaces and missing references abound (if that is possible!) with the entire reference list of one chapter (Perret et al.) inaccessible (references are numbered in the text but arranged by name for the volume). At least one chapter boasts a missing table (Blanc-Garin). Together with a large number of typos, these defects lead one to suspect that the volume was not proofread, let alone edited. And all for the trifling sum of £80.25.

Despite its poor production, *Aspects of Face Processing* provides an interesting selection of contemporary research in face processing. It would be useful to anyone seeking an introduction to the field (provided they could cope with the frustration of missing references) and offers enough new ideas to be of interest to the specialist as well.

J. N. Hingtgen, D. Hellhammer and G. Huppmann (Eds.)

Advanced Methods in Psychobiology.

Toronto: C. J. Hogrefe, Inc., 1987.

Pp. 316.

Reviewed by David Bilkey.

Psychobiology is a growing discipline concerned with the integration of psychological and biological aspects of experience

and behaviour. Many investigators in this field will have found that their research interests are, to some degree, constrained and even guided by their knowledge of the experimental methods which abound in this area. It is, therefore, pleasing to see the publication of a book which aims to provide the psychobiologist with an up-to-date description of many commonly used research techniques.

This book comprises 19 chapters, 18 of which describe some technique currently utilised in psychobiological research on humans and other mammals. These chapters can be loosely structured into four major groups. The first group of chapters describe a variety of methods by which substances can be either injected into, or sampled from, the brain. The next group discusses surgical and lesioning techniques, ranging from adrenalectomy to split brain methods. The third group discusses several electrophysiological techniques, including brain self stimulation and EEG recording during sleep and the final major grouping comprises four chapters dealing with more biochemical and pharmacological orientated aspects of psychobiology. Scattered among these major groups are chapters on microscopy techniques, methods for elucidating the genetics of neuropsychiatric disorders, and a chapter which summarises a

range of classical and operant conditioning paradigms. The amount of technical detail covered differs somewhat from chapter to chapter, as might be expected in an edited volume. Most chapters, however, provide sufficient detail to enable the researcher familiar with basic laboratory procedures, and with the necessary equipment, to implement the described techniques.

Although this book appears to cover most of the commonly used techniques, one might have hoped for one or two chapters on more innovative procedures. It would have been pertinent, for example, to consider techniques such as the use of brain implants and the use of voltage sensitive dyes to enable the visualisation of neural activity. The dividing line between psychobiology and other closely related disciplines is, however, ill-defined and the editors may have been wise to constrain themselves to techniques which belong in 'mainstream' psychobiology. Nevertheless this book serves as a very useful source of information, particularly to the post-graduate student intent on exploring new avenues of the research field. Given the wide range of technical procedures now utilised under the umbrella of psychobiology a volume of this nature is timely and should attract a wide readership.