

the effects of the engine noise on the quality and perception of some classical music. This encouragement of the reader to participate does much to deepen their understanding of the text.

To cover the whole range of sensation and perception has required three authors. Yet the style is very uniform and well integrated. Indeed, another unusual feature is to intermingle the different sensations rather than segregating each one to its individual section.

For the newcomer there is a comprehensive glossary of specialised terms, words and units. There are 23 pages of references containing some 500 scientific papers to enable the reader to study in depth any particular point. There is also a good author and subject index.

Recent advances are often handled by inserting a Special Topic, such as, How to Calculate d-prime, or, What is the Neural Response? or, The Modulation Transfer Function. This enables the newcomer to skip these special points on his first reading.

The publishers are to be congratulated on producing such an attractive volume for a remarkably low price. □

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## How the mind works

Sandy Lovie

*Cognitive Psychology.* By W.A. Wickelgren. Pp.436. (Prentice-Hall: Englewood Cliffs, New Jersey and Hemel Hempstead, UK, 1979.) £11.

THIS is the latest offering from the ever flowing pen of one of the leading lights in human information processing and cognition. In a (relatively) brief compass Wickelgren deftly sketches in most of the live areas and issues of this loosely articulated and most exciting area of psychology. From such traditional areas as perception (both visual and auditory), imagery and attention, thinking, reading and long- and short-term memory, to the more novel topics of semantic memory, Wickelgren has assembled a most persuasive body of evidence to support his modest contention that "Cognitive psychology is concerned with the general principles of how the mind works". Moreover Wickelgren's ability to synthesise material and to disambiguate the closely argued efforts of most of today's brightest workers gives the reader

the exciting and restless feeling of being at the edge of current knowledge (few references are earlier than 1960, most are from the middle to late 1970s).

Of course, Wickelgren cannot hope to avoid the larger questions hanging over the subject: for example, is it structure *and* process or structure *or* process; is it all happening in here or out there; what about the issues of application and ecological validity; how far can we push the computer analogy? Perhaps it is inappropriate to ask so committed a member of the cognition club to bother too much about these issues, as their lengthy (and usually ponderous) consideration tends to spoil the fun in describing the experimental infighting. But these problems are neither trivial nor vacuous simply because of their low rating on the excitement scale.

Three final points: the chapter objectives and summaries are useful both for insightful and memorial purposes; thank God for the lack of references to Thomas Kuhn, paradigms, normal science, and so on; please when can we have a paperback version for our impoverished students? □

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## This Publication . . .



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## Behaviour of experimental animals

B.J. Sahakian

*Animal Behaviour in the Laboratory.* By P. Silverman. Pp.409. (Chapman and Hall: Andover, UK, 1979.) £15; paperback £8.50.

THE author has attempted to write a simple, informative, and interesting account of the methods available for the observation and quantification of the behaviour of experimental animals. The dust-jacket indicates that the text is suitable for use by "second and third year undergraduates studying animal behaviour and psychology; to postgraduates and to industrial research workers in pharmacology and toxicology laboratories". Its 25 chapters cover a range of tests currently used by researchers interested in determining the effects of drugs on behaviour. The tests include those for the investigation of both conditioned and unconditioned behaviours, and the emphasis is on the behaviour of rodents. The chapters are varied and discuss such topics as ethics, experimental design, physiological psychology, drug screening, central nervous system pharmacology, motor activity, exploratory behaviour, self-

administration of drugs and brain stimulation, classical and operant conditioning, and social behaviour.

Although there are some excellent texts for the expert or the advanced student in this area, this book could possibly fill a need for the beginning student or the worker in industrial pharmacological or toxicological research wanting to acquire behavioural skills. Unfortunately, however, though the author has chosen his topics well, their treatment is disappointing. The style of writing is sometimes vague and often lapses into homespun philosophy, where opinions are not substantiated by reference to published research. This tendency is irritating when such important issues as the widespread abuse of barbiturates as sleeping-pills in the UK is discussed for example, page 37. In general the text could be supplemented by more references, particularly in certain chapters (e.g. chapter 11) to work done after 1970.

Balancing these faults, the summaries at the ends of most chapters are clear and concise, and the different indices (General Chemicals, Species, and Author) are a useful feature. Finally, it is obvious that the author has a sincere concern for ethical standards in procedures used with experimental animals, a matter of considerable relevance for a general audience. □

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