reviews

THIS book attempts to straddle the chasm alleged to separate psychotherapeutic and behavioural approaches to the treatment of the 'mentally ill'. In a brave attempt to integrate widely differing approaches, Singer has sacrificed depth for breadth of coverage, and the overall impression is of a somewhat variable series of chapters rather than of an integrated whole.

The first chapter is, to a degree, bewildering; but by the second, I had begun to appreciate the literary style, despite some superficiality of content. Mention of philosophy is curiously confined to late 19th century North American philosophers/psychologists, and there is no consideration of the mind/body problem, nor even an account of the cognitive/behaviourist controversy within psychology. An interesting summary of the imagery methods currently used in psychotherapy is, however, included although it gives the impression of being a rather cursory overview.

The chapters on behaviour modification similarly lack a sufficiently detailed exposition of the underlying theories which Singer is seeking to replace with his own. Singer hits at the counter-conditioning theory of desensitisation, but ignores the fact that most behaviourists have already moved to an habit-

Imagery used to change behaviour

Ronald C. Lyle

Imagery and Daydream Methods in Psychotherapy and Behaviour Modification. By Jerome L. Singer. Pp. xi+ 273. (Academic: London and New York, 1974.) $16.50; £7.90.

uation model. He mentions cursorily the use of deliberate exposure to real life situations, whether using low-intensity stimuli in the case of desensitisation, or prolonged exposure to highly anxiety-provoking situations in the case of flooding. Both of these procedures are now favoured in view of the difficulties which have been encountered with attempts to transfer to real life situations treatment carried out using imagined scenes. Although there are several techniques for using punishment to reshape behaviour, commonly based on electric shock, Singer devotes disproportionate space to the work of Cautela, who uses an imagined scene as the aversive stimulus. He also misses an opportunity to cite McGuire's

work on the acquisition of deviant sexual behaviour by masturbation to fantasy imagery.

Singer follows this with a brief outline of experimental work on imagery, which relies heavily on self-report. Perhaps some mention of personal construct theory would have been relevant in this context. He then briefly outlines a theory relating affect and assimilability of information which seems to bear similarities to Pribram's better articulated concept of emotion as the degree of match/mismatch between stimulus input and expectancies.

A general theory of imagery is advanced which would allow the incorporation of psychodynamic concepts, in as much as early childhood experiences may provide generic categories for later information storage. In the final chapter, Singer rather hastily and unconvincingly discards conventional theories of specific procedures of behaviour modification for vague explanations in terms of cognitive restructuring.

I would not recommend this book as a comprehensive view of the imagery methods used in behaviour modification, although the summary of imagery methods used in psychotherapy is interesting. The book would have been more successful had it been more restricted in scope. □

THE recent discovery of the existence of two superfluid phases of liquid ^{3}He below 2.6 mK has refocused attention on very low temperature physics. The field is at something of a critical point at present. The lowest attainable temperatures, which have been hovering around the 1–2 mK mark for more than a decade, seem about to advance into the microKelvin region, with all its interest of nuclear ferromagnetism, as nuclear cooling now seems to be less difficult than previously thought. It is thus a timely point for the appearance of a textbook on current experimental techniques below 1 K.

Lounasmaa's stated intention has been to write a book treating the four cardinal problems of low temperature physics : how to cool to low temperatures, how to measure the temperature when there, how to establish thermal contact and how to maintain thermal isolation. The book keeps very close to this intent. The reader is led gently into the field with a discussion of the ^{3}He refrigerator before being introduced to

the serious subject matter of the book which—in spite of the title—is experimental principles and methods below 100 mK. The author has a clear expository style and deals with his subject in a straightforward manner. The chapter

Working in the cold

G. R. Pickett

Experimental Principles and Methods Below 1 K. By O. V. Lounasmaa. Pp. xii+316. (Academic: London and New York, September 1974.) £7.80; $20.25.

on dilution refrigerators perhaps makes these devices seem simpler than they are and a fuller discussion of some of the problems would have been helpful. Very little actual experimental work is discussed beyond that which touches directly on the problems of cooling, thermometry and thermal contact or isolation; and this restriction has

limited the book to a manageable size. The one exception, which the author could not resist putting in, is the chapter on the superconducting quantum interference device, or SQUID, which, although not specifically a very low temperature device, is certainly useful in this regime.

The book is also a valuable source of reference. The chapter on thermal contact and isolation has a number of useful compilations of thermal conductivities and Kapitza resistances of commonly used materials. There is a very comprehensive author and subject index and an appendix of suppliers of low temperature instruments, equipment and materials, although this is likely to become rapidly out of date. Rigorous SI units are used throughout; pity is, however, taken on weaker brethren by the inclusion of conversion tables of SI to other units. A valuable book for any low temperature group to have access to and at the price not too expensive for the new graduate student to aspire to his own copy.