

Operant Conditioning: an Experimental Analysis of Behaviour, By D. BLACKMAN, London: Methuen. 1974. Pp. x + 24. £3.20; paper, £1.40.

Derek Blackman's book serves as a readable and concise introduction to the basics of operant conditioning; the publisher's claim that it fills a need for an undergraduate text is more accurate than a statement in the preface that the book addresses the fundamental questions of free will and individual choice. As an undergraduate text this one fills a gap between the excellent primer by Reynolds (1968) and the ambitious survey provided by Millenson (1967). It is half the length of Millenson's text and goes beyond Reynolds' primer in discussing research literature and the use of operant techniques in applied fields. The core consists of several chapters which give a clear exposition of the essentials of Skinner-box experimentation: simple schedules of positive reinforcement; stimulus control (discrimination learning); conditioned reinforcement; punishment; avoidance learning; conditioned anxiety. The use of operant methods in connexion with the study of drugs and behaviour, and their applications in education and clinical psychology, are discussed in additional chapters. Related issues of methodology (single subject research designs) and philosophy ('Science and Behaviour') are covered briefly but effectively.

As a good introduction to these topics, the book may be recommended. It successfully captures the flavour of the Skinnerian approach to psychology. But perhaps it does this rather too well, as its limitations seem to lie in excessive faithfulness to operant conditioning traditions and dogmas. This is most apparent when one considers the topics which have been left out. Classical conditioning, for instance, is mentioned only in passing, with the implication that it is largely a 'poorly controlled' form of the operant type (p. 50). Habituation is nowhere to be found. (There is actually no listing at all under "H" in the index, but other possible candidates – hunger, hierarchy, hypothesis, hypothalamus – are also excluded from the subject matter. Attention gets in only as a reinforcer, and not as something which might be given to a stimulus. Classical conditioning, habituation and attention are all given their due in Reynolds' primer, and there are several other topics, such as imitation, concept learning and learning sets, which could make an appearance in a discussion of operant conditioning (and do in Millenson's survey) but are absent in this case. The most serious omission is autoshaping (Brown & Jenkins, 1968): if a light signals food, pigeons peck at the light without prior training, even if doing so prevents them from receiving food. This, and other findings usually put under the heading of 'Constraints on Learning', have not been ignored in recent operant literature, and present difficulties for some of the concepts and strategies espoused in chapter 4, especially the idea that intensive study of an 'arbitrary' response is sufficient for supplying general laws. I would have preferred that space be found for some of these missing topics, perhaps by shortening the rather technical chapter devoted mainly to the differential reinforcement of low rates of response. As one who agrees that operant conditioning has something to offer in applied fields, I wish that Blackman had also left out his suggestion that pigeons might be used as train drivers, or at least as 'an effective substitute for the human inspector' on the Victoria line (p. 125). Since two pages are spent bolstering this fantasy, some critics may be reinforced for their otherwise unfounded suspicion that the incursions of operant conditioners into human affairs are necessarily naive if not irresponsible. However, this is a lapse from a generally sensible tone and, despite its limited goals, this book is a welcome addition to the available texts on operant conditioning.

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