

are not acceptable. But if a few pages were better out, most of the material is excellent, especially that in Chapter 10 dealing with reproduction, life-span, and adaptations of the life-cycles of parasites to their hosts.

The third part is that for which the book is most useful, and indeed indispensable. Any work on the phenomenon of parasitism must of necessity deal with the relations between the parasite and its host. That these are ecological in nature has long been recognized by parasitologists in several countries, but the Russian workers have especially developed this approach. Dogiel follows Pavlovski in distinguishing two environments of parasites: the host, their immediate habitat, constitutes their micro-environment; but they are also affected by the external environment of their host. Much of the material and some of the ideas discussed in this part of the book will be new and illuminating to many western students.

The final part, on host relations, is less satisfactory, probably because Commonwealth and American investigators have contributed greatly to this subject, and Dogiel's account shows him to be unaware of important work published in English. The division of the bibliography into two parts, Russian and the Rest, affords a convenient survey of Russian publications, but is a nuisance in tracing references from the text.

On the whole, then, this book is strongly recommended. It has failings besides those mentioned—the parasitic insects are scurvily treated and their names are often misspelt—but it is a valiant and generally successful attempt to survey a very large field. If it became widely used in courses on parasitology there would be hope of attracting more and better students to this branch of science.

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## ORIGINS OF CRIMINALITY

### Crime and Personality

By Prof. H. J. Eysenck. (The International Series in the Behavioural Sciences.) Pp. xv+204. (London: Routledge and Kegan Paul, 1964.) 25s.

PROFESSOR EYSENCK is already well known for his important contributions to the analysis of neurotic behaviour. A tough-minded, behaviouristic approach, a certain impatience of received doctrine, and a manifest contempt for the *mystique* of psycho-analysis have earned him bitter criticism from the traditionally minded. But it would be idle to deny the fertility of his bold, simple theoretical arguments in generating hypotheses that have made their impact in several areas of psychology. In his new monograph Eysenck turns his attention to criminal behaviour—another field in which dynamic theories have long held great and rather ill-deserved prestige. The basic structure of his theory of criminality, and the style of discourse which he adopts, are familiar; one may confidently look forward to another outburst of protest. But like his earlier work it contains some incisive thinking, and will undoubtedly stimulate some interesting research in an area in which new ideas are something of a rarity.

The core of Eysenck's theory is the proposition that conformity with social rules and proscriptions is normally secured by a system of aversions which have been acquired by a process of associative conditioning during the early years of life. Childish pilfering, for example, is generally visited by punishment or some other anxiety-arousing token of parental disapproval; the association between the action (or the contemplation of it) and this unpleasant state of emotional arousal persists and is generalized to the extent that it will be revived by any situation which involves the property of others. Thus the individual exhibits a strong tendency to avoid any behaviour which he recognizes as belonging to the category

'stealing'. Such aversions are—according to Eysenck—powerful, reflexly automatic, and highly resistant to extinction. In normal people they are organized into a functional system which constitutes the mechanism of what is commonly termed 'conscience'.

The conception of socialization has several important implications. It represents a rejection of the assumption, long cherished in the courts, that social behaviour is governed by the anticipation of satisfaction and the dread of punishment—a belief conspicuously at odds with the experience of penologists. Eysenck argues that what causes ordinary men and women to avoid crime is not fear of being apprehended (which, in view of the low detection rates for many types of offence, would in any case be irrational) but the resurgence of anxiety which accompanied similar actions in the past. The peculiar permanence of such conditioned reactions is attributed to the special circumstances in which they are acquired. Social training normally proceeds by partial reinforcement (that is, by irregular pairing of the deed and the sanction), a state of affairs known to result in most effective learning. Moreover, it has been established by experiments with animals that avoidance responses are highly resistant to extinction, presumably because they have the effect of steering the organism away from any opportunity for testing the appropriateness of the anticipatory fear—a principle which has been invoked to account for the persistence of phobias and neurotic anxieties.

Why, in the case of criminality, is this mechanism ineffective? The theory proposes three complementary explanations. First, the individual may be constitutionally unresponsive to conditioning. Eysenck asserts that speed of acquisition of conditioned responses and the extent to which they resist extinction are functions of introversion—a personality dimension which appears to be determined to a considerable degree by genetic inheritance. (Eysenck has recently defended this controversial 'conditioning postulate' on the ground that it properly applies only to situations, such as the socialization process, in which partial reinforcement obtains: here, he argues, it has been amply vindicated by experiment.) Persistent offenders, then, may have inherited a natural insusceptibility to conditioning. On the other hand, socialization may fail because the arrangements for training the child are inadequate—he may lack the care of parents, or he may be brought up in a disorganized household. Thirdly, Eysenck suggests (in the teeth of strong sociological evidence to the contrary) that some families actually train their children in criminal values and habits, after the manner of Fagin.

This is but the kernel of the argument; the author ranges, with characteristic panache and persuasiveness, over an immense field—here discussing basic questions of scientific method, there touching on the ethics of punishment. The psychologist reader will discover little that he has not encountered in one of Eysenck's many previous books, but this one is written for the layman and for the ordinary student of criminology; they will find it an entertaining (if unrepresentative) sample of what the psychologist has to offer to the study of crime. In one respect, however, the book is a disappointment. Its discussion of penal methods is curiously sterile. The reason is not difficult to identify. Eysenck is critical of our contemporary preoccupation with environmental correlates of criminality, and naturally emphasizes its biological foundations; unfortunately in doing so he virtually ignores such knowledge as we presently possess of the social context in which crimes are committed and penal treatment—and social training itself—take place. It is an odd omission in a monograph which will certainly be of great interest to sociologists and which, indeed, offers greater promise of integrating our fragmented understanding of the criminal than most of its predecessors in this untidy field of enquiry.

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