approach, and that is that the factors affecting mutation are still unknown. If the mutation problem is regarded as the central problem of evolution, any discussion must at present appear vague, and there is in fact little to say. Dr. Hurst mentions short-wave radiations and leaves it at that, but he does not mention the calculations of Muller and Mott-Smith, showing that the amount of naturally occurring radiation is insufficient to account for the ordinary rate of mutation in Drosophila.

As a botanist, Dr. Hurst perhaps naturally devotes more space to changes affecting chromosome complexes, single chromosomes, and sections of chromosomes than he does to point mutations; and, of course, it may be that it will be found as knowledge accumulates that the former processes have been more important in the elaboration of species differences. A good deal of space is devoted to the attempt to show that genetics can provide a basis for specific classification. The author is on very familiar ground here, for he has himself made notable contributions to the subject in his work on roses and other forms. The net has been cast very wide and there can be few relevant observations and experiments that have not been reviewed.

It is pleasant to find a full discussion on the filter-passing viruses, bacteriophages, etc., for it is difficult to believe that a consideration of the very small has not a big contribution to make to the general problem. It will be realized, of course, that Dr. Hurst is being constructive rather than critical. He is prepared to accept much that is perhaps unproved as yet. If, however, this is borne in mind, the reader can enjoy a book which is a most successful effort to bring together a mass of information and weave it into an ordered whole, full of hints as to some of the advances in biology that are waiting round the corner.

The illustrations are admirable—there are no fewer than 199 of them—and the production of the volume generally is a credit to the publishers.

J. A. FRASER ROBERTS.

PSYCHOLOGY

McDougall, Professor William, F.R.S. *The Energies of Men: A Study of the Fundamentals of Dynamic Psychology.* London, 1933. Methuen. Pp. ix + 395. Price 8s. 6d.

THIS volume is an abridged and simplified version of Professor McDougall's two larger works—*The Outline of Psychology* and *The Outline of Abnormal Psychology.* It is, however, by no means a mere condensation; it is a new and self-contained study. In some respects Professor McDougall has even modified his views and his terminology; he has, too, introduced a fuller treatment of the problems of instinct and intelligence and a constructive theory of the processes of learning.

As it stands, the book should at once take its place as one of the most valuable of existing text-books; but it is something more than a mere text-book for college use. It is written in a clear and interesting style, with a continual eye to practical questions; and thus is admirably suited to give the ordinary reader that minimum acquaintance with the science of the mind without which he is scarcely fitted to be a citizen of the modern world.

As the sub-title indicates, Professor McDougall's approach is essentially functional and dynamic. Hence he rejects the approach of the ordinary manual, which usually starts off with the nervous system, physiological reflexes, and the separate sensations. He protests that, if the student is taught to view a human being as simply a kind of machine whose activities consist in mechanical responses to isolated sense-stimuli, then the time he has spent on so-called psychology is not merely wasted, but worse than wasted. Throughout, therefore, he discards the materialistic standpoint, and insists on the purposive nature of all human action.

Professor McDougall begins with an excellent review of the current schools of psychology. Then, after briefly considering the simpler forms of mental life, he discusses in detail the inherited basis of

instinctive behaviour. This leads him to describe the behaviour of the higher animals, and then to apply the comparative method to the problem of man's own native endowment. This brings us to a series of chapters describing the mind in action and the role of pleasure and pain, feeling and emotion. Character and the organization of the affective life are discussed in detail.

The second half of the book deals with the sub-conscious working of mental tendencies and the chief disorders of mental functions. Here he gives a sane and well-balanced account of the newer theories popularly associated with the name of psycho-analysis. After discussing the more important problems of mental hygiene and mental treatment, the book concludes with a chapter on personality.

All through, the discussion aims at giving not merely facts but interpretations of facts. The more difficult issues are not neglected but are dealt with in brief appendices. The book admirably demonstrates that psychology is now not only a well-established science but a subject of the highest cultural value.

CYRIL BURT.

SEXUAL PSYCHOLOGY

Ellis, Havelock. *Psychology of Sex; A Manual for Students.* London, 1933. Heinemann. Pp. vii + 322. Price 12s. 6d.

THE appearance of this book is to be welcomed for two reasons; first, there is a genuine demand for a manual of this kind, and second, there is no psychologist so well qualified to supply what is wanted as Havelock Ellis. There must be large numbers of intelligent persons to whom the knowledge here made easily and pleasantly available will be highly acceptable; but there are many more to whom it may be said to be indispensable. To the student of medicine a reasonable understanding of the normal psychology of sex and of the principal deviations is most desirable; but to the medical practitioner it is absolutely necessary. Yet to neither class is the information at all easy to come by. A few of the more common deviations are dealt with —in a somewhat sketchy and shamefaced fashion—in the text-books of Medical Jurisprudence. But there they are discussed chiefly in their legal aspects; which are precisely the aspects with which the medical practitioner is least concerned. For, as Havelock Ellis has pointed out here and elsewhere, the tendency of English law is to treat all sexual deviations and abnormalities as "crimes" or "offences against decency." The practice of magistrates and judges seems to be influenced by archaic survivals and traditional beliefs, based upon obsolete theological teachings; beliefs which it is the function of the medical witness, if possible, to modify and correct. In his *Views and Reviews* (2nd series, p. 218) Havelock Ellis cites a case of an "eonist" who was sentenced to eighteen months' imprisonment with hard labour on a charge of "indecency," in spite of the clear evidence of two quite well-informed medical witnesses as to the actual nature of the case; which suggests that the members of the legal profession might be included in the category of persons who would be benefited by the study of this modest and convenient manual.

Apart from the text-books of Medical Jurisprudence, there appears to be nothing but the author's *Studies in the Psychology of Sex*; which, indeed, is complete enough, but its very completeness is a defect from the point of view of the medical student or practitioner, neither of whom has the time or leisure to devote to a work in seven ample volumes. Moreover, the *Studies* is not of the nature of a text-book or manual. It is, as its title indicates, a collection of studies of the different aspects of sex psychology illustrated at great length and in minute detail by actual cases, and is thus suited rather to the needs of the professed psychologist or psychiatrist than to those of the general student or practitioner.

The present work, however, is not a mere summary of the *Studies,* but is a student's manual, designed as such with the aim of furnishing an introduction to the whole sub-