although not without a note of warning that naval and other professional or official gradings may introduce a note of disharmony. Historical causes, which are here ably analysed, have brought it about that in all personal associations racial feeling is entirely absent. Americans, Hawaiians and Orientals associate on equal terms and without afterthought. Thus the book closes with the comforting thought for the practical sociologist that in one spot, at least, in a world-wide survey, a solution of the racial problem seems to have been attained.

## A Psychology of Conduct

The Psychology of Wants, Interests and Attitudes By Edward L. Thorndike, and the Staff of the Division of Psychology of the Institute of Educational Research, Teachers College, Columbia University. (Century Psychology Series.) Pp. x + 301. (New York and London: D. Appleton-Century Co., Inc., 1935.) 10s. 6d. net.

T seems perfectly obvious that factors which in common conversation are called wants, interests, attitudes, desires, motives, tendencies and feelings influence human action, and perhaps the behaviour of all animals, more powerfully than any others. For many reasons, however, factors of this kind are not easy to study experimentally in an adequately controlled manner, and comparatively little is known definitely about the ways in which they operate. Many years ago, Prof. E. L. Thorndike began to develop an experimental technique for studying these 'satisfiers' of action, as he now calls them, and he soon arrived at the view that they operate, not only in a prospective manner, tending to establish connexions between particular reactions in a series, but also, retrospectively, strengthening or weakening connexions once set up. In this book he, and a number of his students, present and discuss the results of their most recent studies of the general problem of the effects of specific tendencies upon behaviour.

A want may lead a person to act in a specialised manner the very first time it is aroused. But when the same want has been aroused a hundred times, the resulting action may be very different. This difference, Thorndike says, is due to two things : the backward influence of the want, and changes in the wants, and connexions of wants, themselves. These are his two main problems : how can wants, interests and attitudes act in a backward way upon the series of acts which satisfy them ? Also how are they "strengthened, weakened, and shifted in their attachments" ?

It is not possible, in a brief notice, to describe in any detail the mass of ingenious experimental dodges used by Thorndike and his collaborators. All of them in this book concern human action, and particular questions asked and answered are : How does a want determine what response a situation is going to evoke ? How does it settle what response is going to survive ? What is the precise influence of reward and punishment? Is there any real difference between learning to know or to do things that are valuable and things that are useless ? It is now regarded as more than ever certain that wants, and the like factors, do somehow work backward, strengthening the bonds between acts that lead to their satisfaction. Further, some progress is made with the job of saying in detail how they do this, though the physiological mechanism involved—and Thorndike is quite sure that there is one-remains obscure. Apparently punishments are not of vast direct significance, though they can turn aside the agent to some course of action that is a genuine 'satisfier'. The experiments on the direct influence of interests on learning and doing are perhaps a little less convincing than some of the others, but from them it appears that the common belief that interest aids both is justified, but exaggerated ; while if interest is present, whether what has to be learned is useful or not seems to make very little difference indeed.

The second part of the volume, dealing with the changes that may take place in wants, interests and attitudes in the course of experience, is not less important than the first. Again, rewards bulk largely in the discussion. What is the effect of a reward, near, or remote, emphatic, or weak ? How are wants affected by being tied up with particular stimuli and situations by a conditioned reflex method ? What precisely happens when a stimulus, being unpleasant, is nevertheless often repeated ? A final chapter discusses difficulties in the education of wants, interests and attitudes, and appendixes give adequate samples of the experimental methods used throughout, and their results.

The volume as a whole is an extraordinarily interesting piece of pioneering work. It is original, both in design and in execution. It should point the way to a host of investigations, by relatively controlled methods, of intensely important theoretical and practical questions which hitherto have been mainly merely a field for conflicting speculations. F. C. B.