

APPLIED PSYCHOLOGY

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NEW EDITION

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APPLIED PSYCHOLOGY

BY HARRY L. HOLLINGWORTH

JUDGING HUMAN CHARACTER
THE PSYCHOLOGY OF FUNCTIONAL
NEUROSES

ADVERTISING AND SELLING
Principles of Appeal and Response

VOCATIONAL PSYCHOLOGY

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(With A. T. Poffenberger, Jr.)

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TO OUR TEACHERS

J. McK. CATTELL

EDWARD L. THORNDIKE

ROBERT S. WOODWORTH

PREFACE TO THE NEW EDITION

"APPLIED PSYCHOLOGY," in its original form, has seemed to fill a useful place, especially as a textbook on the subject which it presents. This revision undertakes to include indications of the chief advances in the field during the six-year period now past. Nearly every chapter has been enlarged, and new chapters have been added.

Various new features are also incorporated, which may give the book an increased value when used as a text. A series of exercises for home study or for classroom use has been provided for each of the chapters, and a selected bibliography, classified under the chapter headings, is appended. This bibliography will be found useful in the planning of reading assignments and reports, and by way of collateral reference.

In the years since the first edition was published the progress of applied psychology has been both extensive and rapid. Numerous books have appeared covering some of the special fields in detail. No attempt is made to make the new edition a complete handbook covering all the accomplishments of applied psychology, nor is space given to the elaboration of special technique. The book aims, as before, to constitute a systematic sketch of the problems, methods, and typical results in the leading fields. It is a text, in the special sense that it should invite much ampli-

fication and illustration, which may be developed according to the interests of those who use it.

That "applied psychology is a dignified, productive and vigorous activity" no longer requires demonstration. The exigencies of the World War served not to check its activity, but instead to stimulate it and to draw it into service on a national scale. The future may be occupied, first, with the consolidation of these gains, and then by the undertaking of still more difficult practical problems.

H. L. H.

A. T. P.

PREFACE

Books in the field of applied psychology have tended in the past to belong in one or several of three categories, which may be described in some such way as the following: (1) Technical monographs, such as are intelligible only to the advanced student or the professional psychologist; (2) Volumes covering in an intensive way some particular and limited field of practice, such as education, advertising, mental examination; (3) General and more or less prophetic popular essays, pointing out suggestive fields of interest. There exists no book which well serves as a general text of applied psychology, presenting its principal aims, types, methods, its various fields of endeavor, and its outstanding results and accomplishments. Students of applied psychology must at present be referred to a very scattered series of special articles, monographs or books, of varying value, and by no means generally, easily or equally accessible. The general reader, working without expert guidance, can hardly do more than dip in a random way into magazine stories, subscription books, and an occasional serious exposition of the more restricted type. The general text books of psychology do not have the practical point of view for which he is in search.

Applied psychology is clearly on the way toward a dignified and prosperous existence. The present year has seen

established the first professorship of applied psychology, the first American journal of applied psychology, and university courses and lectureships in applied psychology are rapidly multiplying. Psychology has been recognized as a vocation under the civil service regulations, and applied psychologists are finding themselves called to work in factories, schools, courts, hospitals, agencies, banks, employment departments, and various branches of municipal and civic enterprise. With this record of substantial achievement in applied psychology, it seems only appropriate that there should be also available a general text book devoted to the subject. The authors of the present book have both been engaged for several years in teaching, research and consultation in this field, and have long felt, in their own work, the need for an exposition of the subject, which should be comprehensive, suggestive and interesting without sacrifice of definiteness, accuracy and balance. This need has prompted them to prepare the present book, which it is hoped may be useful at the same time to the student, the teacher and the general reader.

In the earlier part of the text will be found a systematic statement of various aspects, principles and results of modern dynamic psychology which bear in a specially practical way on the personality and competence of the individual, regardless of his or her particular occupational activity. Emphasis is given to problems of original nature and instinctive equipment, the inheritance of mental traits and capacities, individual differences, the conditions and methods of effective work, learning and rest; the psychological influences of such biological factors as age, growth,

sex and race; of such physiological factors as fatigue, drugs, periodicity, posture, sleep; and of such environmental factors as illumination, ventilation, weather, humidity, temperature, time of day, distractions, solitude.

In the latter portion of the text the attitude, content and technique of psychology are considered in their particular relevance to the various types and fields of occupational activity. Attitude, content and technique, yielding three distinguishable forms of application, are illustrated by concrete achievements in those fields in which the relations between science and practice have been most explicitly formulated. These fields include the various departments and activities conveniently classified under the more general headings of Management (employment, supervision, organization, training); Industry (economy of effort, routing, time and motion study); Business (manufacturing, advertising, salesmanship); Law (testimony, evidence, responsibility, prevention and correction); Social Work (misery, delinquency, defectiveness, mental abnormality, social psychology); Medicine (examination and research, pharmacopsychology, psychotherapy, the psychological clinic, the medical curriculum); Education (school subjects and operations, methods of teaching, individual differences, educational diagnosis, the learning process, educational measurement). A final chapter discusses the various institutional adjustments necessitated by the development of applied psychology, the current and probable future tendencies, and their relative desirability.

In so new and rapidly growing a field as that of applied psychology the teacher and professional student will for a

long time find it useful to supplement even the most encyclopedic text book with concrete results from current investigations and achievements. The present book will have accomplished its aim if it assists in systematizing a field hitherto vague and unorganized, and helps to demonstrate that applied psychology is a dignified, productive and vigorous activity, as well as a fervent hope and a confident prophecy.

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APPLIED PSYCHOLOGY

CHAPTER I

EFFICIENCY AND APPLIED PSYCHOLOGY

EVERYONE is familiar with the great increase in the popularity of psychology within recent years. The number of books on psychological topics, the number of so-called psychological plays, of references to psychology in the newspapers and magazines, of efficiency bureaus and similar enterprises in the business world, all indicate a remarkable change in the status of psychology.

Modern Tendencies in Psychology.—What is the cause of this great and sudden popularity? One might surmise that it is due to the fondness of the American people for fads, and that in a few years nothing will be heard of all of these applications of psychology to practical life. But there is another reason which seems far more plausible than this. It is the change which has taken place in the attitude of psychologists themselves toward their problems in the last twenty years. If we go back to the time of Aristotle, we find that psychology was of a speculative nature, and that its subject matter was the

soul. Each philosopher had his own philosophy and arranged his psychology to suit that. Many centuries later there were attempts at an accurate description of the mind; and the mind consisted of consciousness and nothing more. Consequently, there was great difference of opinion as to what the mind was really like. Each man alone could see and examine his own consciousness and no one could dispute what he found. Thus there were possible as many different views of the mind as there were individuals studying it. Many of our psychological problems even today are in a state of confusion for the reason that examination of consciousness offers the only source of information at present available. For instance, some psychologists insist that there are no such things as mental images, because they themselves do not find them in their consciousness. Others assert that there are images but that they are of no use, that they are simply accompaniments of the necessary processes, or are by-products of these necessary activities. Others contend that the mental images are absolutely essential to thought and give them a very high place in the mental life. These differences of opinion are probably inevitable so long as the investigations are limited to the study of consciousness.

Such a state of affairs would naturally be unsatisfactory to those who hoped to make psychology a science. There could be no reduction of the findings to laws, so long as these findings differed in the case