

Psychology
and Life

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PSYCHOLOGY AND LIFE

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Preface

“Teaching may be compared to selling commodities. No one can sell unless somebody buys.”—JOHN DEWEY.

I DO NOT know exactly how many textbooks in elementary psychology have been written in the past thirty-five years. These books were written in loyalty to something. All of them were dedicated to psychology: some to psychology as a science; some to psychology as an exact science; others to the author's system, or to the author's favorite professor's system. I have not seen a textbook of elementary psychology written under a vow of loyalty to the student as a certain member and possible leader of society. Inspection of many of these textbooks shows that space is portioned out to the various topics roughly on the basis of the amount that is known about those topics, with an occasional distortion of this relationship in the regions representing an author's special interests. I am not condemning these practices. I have at times even praised them. I should merely like to indicate that this textbook in elementary psychology has, rightly or wrongly, been differently conceived.

Like any number of my colleagues I have become convinced that as teachers and textbook-writers many of us have made too little use of what is known about human nature at the college level. Else why should psychology, the richest of all the sciences in implications for human life and happiness,

be sometimes relegated to the cellar in students' ratings of the interest and value of college undergraduate courses? As experimental psychologists, we have investigated the rôle of motivation in human behavior; as teachers of psychology, we have been too little concerned with the dynamic aspects of learning. Fortunately the trend is shifting. We are coming more and more to apply what we know about learning in the teaching of what we know about psychology.

College teachers of psychology, like manufacturers of a product, are obliged (the former morally, the latter economically) to analyze the "market" and to create a product which meets a human need. Whether the underlying motive be that of financial gain or the more noble one of service to society is immaterial; the essential procedures are the same. A service or a product is worth while only when it meets the needs or wants of human society. Business men with something to sell have been quick to apply the facts and methods of the psychologists in merchandising their products; we psychologists have, however, been slower in making application of our own findings to the problems of teaching. This book represents an effort to build a course in elementary psychology which will meet the interests and needs of college students as they are revealed by the students themselves and by college administrators whose business it is to weigh carefully the aims and content of college subjects; and a course which will, at the same time, lay an adequate foundation for advanced work.

In conducting the researches upon the results of which this book was built, needs were defined by students and educational experts; wants, by the students alone. Fortunately, interests and needs are pretty largely the same. For this I have evidence. Rating scales containing 122 topics which might be taught in an elementary psychology course were sent to colleges and universities located in various parts of the United States. The degree of interest of each topic was rated by 1000 students at the end of their first course in psychology. Utility of the subject-matter was determined first by asking

100 non-psychologist college administrators to rate the degree of social value of information on a smaller sample of these 122 topics drawn at random from the larger list. A second determination of the utility of information given in the first course was made by collecting data from men and women who studied psychology ten years ago. In this study the entire list of 122 topics which had been rated for interest by the 1000 students were rated by 200 men and women for degree of utility as revealed by ten years of living outside college. Those topics which stood highest in interest as rated by college students at the end of their first course also stood highest in social value as rated by professional educators and in utility as rated by college men and women who studied psychology ten years ago. The coefficients of correlation expressing these relationships when corrected for attenuation stood so close to unity that the conclusion was inescapable that all three questionnaires measured the same thing. The direct implication of this correlational analysis is that subject-matter which meets the *interests* of the student also meets the *needs* equally well. This fact has greatly simplified my task. (Students confronted with the necessity of adjusting themselves to the complexities of social life are primarily interested in themselves.) At the very top of the interest scale came the following ten items:

- Understanding one's own personality problems.
- How to improve one's own personality.
- Human motivation.
- The applications of psychology to the training of children.
- The technique of reasoning out everyday problems.
- The problem of heredity *vs.* environment.
- The development of character.
- The psychological factors in crime and delinquency.
- An understanding of mental disorders and insanity.
- How to study effectively.

But notice that students' interests are not entirely selfish. Although the demand for information which will help the

individual to get on in the world is enormous, these results also show that students are not blind to their obligations as members of society.

The following ten items are near the bottom of the scale of interest as judged by the 1000 college students.

The methods of studying the learning of nonsense materials.

How to train your pet dog or cat to do tricks.

Maze learning in animals.

Theories of audition.

Wundt's theory of the feelings.

Learning and thinking in rats and lower animals.

How the blind read with their fingers.

The anatomy of the sense organs.

The methods and results of animal psychology for their own sake.

The anatomy of the brain.

Notice that the item *How to study effectively* is among the ten most interesting, while *The methods of studying the learning of nonsense materials* comes near the very bottom of a list of 122 topics. I do not propose that the psychologies of the future omit all mention of nonsense syllable learning because students find that topic uninteresting. I propose rather that the dynamic value of interest in learning how to study effectively be employed in teaching the student the basic facts of learning. By showing the student that *substance* learning is more efficient than *verbatim* learning we teach something about the factor of meaning as determining the rate of learning and at the same time teach him how to study more effectively. This example illustrates my fundamental theme and guiding principle in the preparation of this book. The traditional core of the first course is presented as bearing on problems of adjustment which the students feel to be real and pressing. Some of the more difficult traditional material which was found in my researches to be lacking in interest and utility has been omitted, for I feel that such material belongs in specialized advanced courses which will be taken by all students who are seriously planning for themselves careers as academic

REFERENCES: Because footnote references to sources became unusually numerous, they have been placed at the end of the book (beginning on page 654), numbered and grouped by chapters. Corresponding superior figures appear throughout the text.

F. L. R.

The Pennsylvania State College
June, 1937

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ALTHOUGH the picture sections preceding each Part are independent—meant in each case to be literally a preview of the Part—use of them is made from time to time in the text. To distinguish between these pictures and the drawings that are a part of the text, the former are referred to as *Illustrations*, the latter as *Figures*. For example, the direction “See Illustration 8” refers to the eighth page of the picture pages, which are numbered *seriatim* (separately from the regular pages of the book) and printed on a different stock of paper.

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Psychology and Life

PART I. PSYCHOLOGY AND PEOPLE

PART II. THE BACKGROUND OF BEHAVIOR

PART III. PSYCHOLOGICAL PROBLEMS

PART IV. OBSERVING, LEARNING, AND THINKING

The Subject-Matter of Psychology

*"The proper study of
mankind is man."* POPE

Developing through many stages, psychology has passed from the armchair into the laboratory, thence into the world . . . now has its own well-established methods, which are essentially scientific, its own clearly defined field, which is *you*.

HUMAN PSYCHOLOGY is that science which seeks to understand the behavior, motives, and feelings of people in order that they may better predict and control their own lives and more effectively influence those of others. Psychology today is as broad as life itself. In fact, the extent of the field of psychology is so great that many segments of it have been only partially explored.

What psychology is and does

HOWEVER carefully they may be phrased, definitions rarely tell the whole story. Let us attempt the definition of psychology in a more meaningful fashion by looking at some of the problems which fall within its limits and at some of the questions it answers.

Psychology helps you to understand yourself. Two psychologists recently asked the students of a large university to indicate the problems which they thought the university should be helping them with but was not.¹ The problem most frequently

mentioned by the students was that of getting information about their own personalities. Next came that of how to choose a vocation. Since personality plays an important part in determining success in a particular walk of life, the second problem is closely related to the first. Both of these problems are fundamentally psychological. Both will be treated at length in subsequent chapters.

One of the most effective ways of studying consists in relating the subject-matter of a course to one's own personal problems or to problems which concern us all as members of society obligated to make the world a better place in which to live. Whenever a new fact or principle is encountered, you should ask yourself certain questions. How does this apply to me? How can I use this information in helping a friend or relative? Can I use this information to eliminate injustice or stupidity? The student who studies psychology seriously will find frequent helpful applications of the content of psychology to problems of vital concern.

Psychology helps you to understand the other person. Why do people do what they do? This is a question of motivation. Why is George so timid? Why is Henry so boisterous and aggressive? These are questions lying within the field of the psychology of personality. Why will Jones become a machine-gunner in the next war, while Smith will go to prison as a "conscientious objector"? This is a problem of motivation and personality. Why does salesman Brown come back with an order, while salesman Black returns with an excuse? This is a problem of employment psychology. Why does Mary get straight A's, while Ruth fails in all her studies? Here we have a problem in educational psychology.

You will not be able to answer completely all of these questions. No book, no course, no teacher can bring about perfect insight into the vagaries of human nature; but if you study psychology, you will find yourself less often puzzled than you formerly were by the things that people do, feel, and think.

Psychology helps you to serve society. Human happiness

grows out of a harmonious adjustment of life to the conditions imposed by society. Sometimes these conditions are good; sometimes they should be improved. Society expects its college graduates to be leaders in the life of the community. Numerous surveys show that college graduates are more frequently selected as leaders than are less favored persons. A thoroughgoing knowledge of psychology will help you to serve society as well as yourself.

Man is the material of which human society is built. This is fundamentally true, although we admit that human individuals living in groups create social institutions which become greater in their strength and influence than any particular person. Even so, social institutions, such as marriage, church, family life, and moral codes, were first created by men and then adopted and maintained by men.

A comprehensive knowledge of the thinking, feeling, and doing of human beings is as fundamental to effective social living as a knowledge of the properties of various building materials is to the work of an architectural engineer. It is only through an understanding of man as an individual that we can arrive at an understanding of the complex man-made institutions which, taken as a whole, we call society. Society gives us much in the way of protection from disease, crime, and poverty, but at the same time it demands a great deal of us in the way of conformity to moral codes and conventions. In the end, however, the individual gets more than he gives. The final proof of this is the inescapable fact that man in groups has survived, while man alone, if he ever existed, has been eliminated in the struggle for existence.

Psychology is the youngest science. Psychology has been in existence as an experimental science for barely more than a half century. In its beginnings psychology was almost entirely physiology. The early psychologists studied the structure and function of the sense organs. They strove to establish exact mathematical relationships between the strength of a stimulus, such as light or sound, and the strength of the sensation

aroused. These early workers deserve the utmost credit because they were successful in taking psychology out of the hands of the philosopher and theologian and putting it on its own feet as an experimental science. But they were so earnest in their desire to show that human behavior and experience could be studied by scientific means that they sometimes forgot the social significance and practical importance of the human activities studied. Whereas the reaction of one human being to another in society is one of the most fascinating of all studies, these early psychologists created a dry subject-matter dealing with man in the laboratory but not in life. There was a perfectly good reason for this early neglect of the social implications of human behavior. It frequently happens that simple phenomena are easier to observe and experiment upon than are the more complex happenings in the natural universe. Social behavior is invariably complex, and accordingly appeared to be less susceptible of scientific analysis than the relatively simpler phenomena, such as sensations. As psychology advanced and conquered the simpler aspects of human behavior, its workers became bolder and started to study the more complex problems of thinking, emotions, intelligence, character and temperament, personality adjustment, and motivation. These complex but socially significant problems are the ones which will be given greatest consideration in this book.

Some modified definitions of psychology. On the opening page of this chapter human psychology was defined as that science which studies the behavior, motives, and feelings of man. Psychology has not always been thus defined. It is instructive and amusing to examine some of the earlier definitions.

(a) Psychology as the study of the soul. The word psychology means science of the soul. But the ancients who used this definition thought of the soul as without form, size, color, or other physical attribute. The soul feels but cannot be felt, said the philosophers of old. How then could there be a science of the soul? For science implies measurement, and measurement

is simply refined and standardized sensing. For this reason the concept of soul has been dropped from modern psychology, although it still has its place in religion.

(b) Psychology as the study of the mental faculties. Mind was once conceived of as a bundle of powers or faculties capable of separate existence and disembodied function. Philosophers talked of "pure reason" as though reasoning could be accomplished in the absence of observation to give us the essential data, and of memory to preserve those data for use.

The phrenologists carried this conception of mind as a bundle of powers or faculties to its absurd conclusion by assigning to each of the faculties a throne in some nook or cranny of the brain. They argued that the person who had a great deal of a particular faculty would have a bump on his skull at the point where this power was supposed to be located (as though soft, yielding brain tissue could force the solid bone of the skull out of place). It is interesting to note that when the part of his brain thought by the phrenologists to be the center of religion is stimulated, a man twitches his leg. Illustration 5 shows a phrenologist's map as compared with the real localizations of brain function, which have been established by years of careful observation and experimentation. Because so many untrue and confusing notions covering mind still persist, psychologists are reluctant to use the term. There can be no science of mind when mind is falsely thought of as faculties, but, since the term "mind" has no other good equivalent in English, we are forced to use it with reservations. As used by psychologists today, the term *mind* refers to the sum total of activities whereby the individual adjusts to the world, especially to those activities which have been influenced by past experience or are capable of influencing future adjustments.

(c) Psychology as the science of consciousness. Consciousness or awareness as personally experienced is a fact, but its study has led to many complexities and to much confusion, shared by psychologists and laymen alike.

What is this thing called consciousness? A medical student