

# Understanding Psychology

FOURTH EDITION

PAUL R. ROBBINS

J. WESTON  
**WALCH**  
PUBLISHER  
CULVER CITY, CA

# Contents

<b>Chapter One:</b> Introduction to Psychology . . . . .	1
<b>Chapter Two:</b> Methods of Psychology . . . . .	13
<b>Chapter Three:</b> Biology and Behavior . . . . .	31
<b>Chapter Four:</b> Sensation and Perception . . . . .	43
<b>Chapter Five:</b> Memory . . . . .	61
<b>Chapter Six:</b> States of Consciousness . . . . .	75
<b>Chapter Seven:</b> Learning . . . . .	87
<b>Chapter Eight:</b> Motivation and Emotions . . . . .	101
<b>Chapter Nine:</b> Personality . . . . .	119
<b>Chapter Ten:</b> Human Development—Infancy and Childhood . . . . .	137
<b>Chapter Eleven:</b> Human Development—Adolescence . . . . .	157
<b>Chapter Twelve:</b> Human Development—The Adult Years. . . . .	177
<b>Chapter Thirteen:</b> Psychological Disorders. . . . .	191
<b>Chapter Fourteen:</b> Psychotherapy . . . . .	211
<b>Chapter Fifteen:</b> Concluding Remarks. . . . .	229
<i>Glossary</i> . . . . .	233
<i>Answer Key</i> . . . . .	239
<i>Image Sources</i> . . . . .	241
<i>References.</i> . . . . .	243
<i>Index.</i> . . . . .	261

## CHAPTER ONE

# Introduction to Psychology

What is psychology? The answer is not as obvious as it may seem, and psychologists have disagreed among themselves. Asking “What do psychologists deal with?” or “What problems are psychologists concerned about?” may be a better way to begin.

**Psychologists** are interested in behavior, primarily the behavior of human beings, though many psychologists are interested in the behavior of animals as well. Psychologists are also interested in mental processes—the thoughts, ideas, and understandings of human beings. These mental processes, sometimes called **cognitions**, are very important to clinical psychologists, who are trying to help persons with emotional problems or severe mental illnesses, and to educational psychologists, who are trying to develop better ways of teaching. Clearly, psychologists are also interested in feelings and emotions. The feelings of **anxiety** and **depression** are perhaps the most frequent problems that a clinical psychologist encounters.

Psychology deals with the behavior, thoughts, and emotions of individuals. The focus of psychology has always been on individuals. This makes it different from sociology or anthropology, where the focus is on groups of people and the way people are organized into societies.

Psychology is not the only field of study that deals with human behavior, thoughts, and emotions. For example, philosophy, religion, and literature are deeply



Whatever is accepted as fact or principle in psychology must be established using scientific methods. This usually means carrying out large numbers of carefully controlled studies and experiments.

concerned with these subjects. The basic difference between psychology and these other important forms of human inquiry is that psychology is a branch of modern science. Whatever is accepted as fact or principle in psychology must be established using scientific methods. This usually means carrying out large numbers of carefully controlled studies and **experiments**.

Psychology as a scientific discipline is not very old. Some writers date it to the latter part of the nineteenth century, when Wilhelm Wundt founded the first major psychology laboratory in Leipzig, Germany. The interest of men and women in the problem areas of psychology, however, dates back to the time of early written records and probably to the dawn of human history. For example, there are records from the ancient lands of Mesopotamia revealing that people there puzzled about the nature of dreams. Where did dreams come from? What did they mean? Psychologists are still very much concerned with this problem. Today they approach the problem with the aid of sleep laboratories with electronic equipment that monitors eye movements and brain waves.

The ancient Greeks, who seem to have been interested in almost everything—sports, mathematics, government, the arts—were deeply interested in the problems of psychology. Plato talked about discords of the mind, and Aristotle distinguished between various psychological states such as perceiving, thinking, and imagining. The basic approach of Aristotle was one of observation and reasoning—what some might call armchair reasoning. This is fine as far as it goes, but it doesn't go very far. It stops short of a very important step—*verification*, or testing your ideas to see if they are correct.

Armchair reasoning in psychology is like taking a preseason poll in sports before the season actually begins. Sports experts analyze the talent of different teams (say, college basketball teams), look at the strengths and weaknesses of the players, and then decide which team is the best, second best, and so forth. The preseason poll is published in the newspapers. Then, the season begins. It often turns

out that some highly rated teams don't perform as well as expected, and some teams, which were not expected to perform well, do better than expected. As the season progresses, the preseason polls are sometimes dramatically revised.

Now imagine a situation where the preseason polls are carried out as usual. However, this time the polls are accepted by everyone as fact—what the experts said is taken as true. Under these circumstances, there would be no point in playing any games. Imagine that all the games are canceled and the championship is decided by the experts' preseason reasoning. Wouldn't that be an easy way of settling the question of which team is best? The only problem, of course, is that the experts could be dead wrong in their conclusions.

Aristotle's prestige was so great that his carefully reasoned view of the world, science, and human nature was accepted as the standard of knowledge for centuries. Until the nineteenth century, armchair reasoning was the basic approach used in the study of psychology. Scholars continued to draw distinctions between various mental processes, and they seldom went beyond this speculation.

During this prescientific period of psychology, a number of philosophers expressed thoughtful ideas about human behavior, and great writers such as Shakespeare offered penetrating descriptions of human actions and motivations. Records show that many people had enlightened views about mental illness, seeing its origin in psychological and physical causes. At the same time, however, there was a great deal of misinformation about human behavior, particularly about the symptoms of mental illness. One time-honored way of explaining abnormal behavior was to say it was caused by possession by evil spirits or devils. This was particularly true of the symptoms that were finally identified in the mid-nineteenth century as a mental illness called **hysteria**. One sees little of hysteria these days, but in earlier centuries, it seemed to be more widespread. Some of the symptoms of hysteria are apparent paralysis, loss of sight or hearing, amnesia (loss of memory), anesthesia (insensitivity to pain), tics,

tremors, and convulsions. These symptoms occur in hysteria without any medical basis—nothing is physically wrong with the patient that would account for such symptoms.

Until the mid-nineteenth century, many people believed that such symptoms were caused by witchcraft or possession by devils. One treatment used was exorcism. During the exorcism rites, the afflicted person might go into convulsions. Some of the reports describing these convulsions sound grisly enough to rival a Hollywood horror film (for example, “her teeth rattled and sound came out of her throat . . . her face became completely unrecognizable, her glance furious, her tongue prodigiously large . . .”).

Sometimes the person who was supposed to be bewitched went into convulsions at the sight of the alleged witch, which could be taken as proof of the witch’s guilt. The unfortunate people who were thus accused risked burning at the stake.

## The Forerunners of Modern Psychology

Modern science as we know it began during the Renaissance. The story of Galileo and the Leaning Tower of Pisa is often told as an example. Tradition has it (and it may or may not be true) that Galileo stood atop the tower and dropped a heavy weight and a lighter weight at the same time. Galileo wanted to test the then-accepted idea that the heavy weight would hit the ground first. Using simple experiments, he was able to show that this was not the case. When Galileo began these demonstrations, he introduced an essential part of the scientific method as well—an attitude that seems to say, “show me” or “prove it.”

The natural sciences made great progress following the Renaissance, but the social and behavioral sciences lagged far behind. Eventually, the idea began to take hold that if experimentation and the scientific method were producing dividends in the study of nature, such methods might also work in the study of the mind’s workings.



Wilhelm Wundt (seated) with colleagues in his psychological laboratory

In nineteenth-century Germany, a number of people whose original training was in physiology, medicine, or physics began to cross the frontiers of these sciences into the then-unknown realm of psychology. The man who took the radical step of actually setting up a laboratory to study psychological problems was Wilhelm Wundt. Trained as a physician and in physiology, Wundt set up a laboratory in 1879 in Leipzig. There, he and his students began to “open up” the study of psychology.

Wundt believed that the study of psychology should start with **introspection**—looking carefully at and analyzing one’s own conscious experiences. Although this approach did not prove very fruitful, Wundt also believed in the importance of experimental studies. His laboratory carried out research on topics such as vision, hearing, touch, space perception, reaction time, and word association. In these experiments, Wundt and his students showed that psychological problems could be studied in the laboratory. With these pioneering efforts, Wundt certainly qualifies as one of the founding fathers of modern psychology.

One major branch of modern psychology had its origins in the nineteenth-century interest in hypnosis, sleepwalking, and amnesia. These mysterious happenings seemed to point toward the existence of **unconscious** mental processes. The discovery of hypnosis is linked with the name of an eighteenth-century Austrian physician, Franz Mesmer, who treated patients with a technique he called *animal magnetism*.



# Extension Activities

---

1. Can you think of some theories in fields other than psychology, such as physics, chemistry, astronomy, or biology?
2. Would you like to get an idea of what it is like being an interviewer? If so, interview one of your classmates about his or her use of leisure time. Make up ten questions about sports, hobbies, and recreation. Put the questions into an order that has a good, conversational flow to it. Then conduct your interview, keeping notes on the responses.
3. Here is a way to get a better feel for some of the statistical terms we discussed. Temperature readings change from day to day. The high and low temperatures for the day are often posted in the daily newspaper. Keep a record of the daily high temperature for a week. Then calculate the mean, median, and mode high temperature readings for the week. Also calculate the range of these readings.
4. We mentioned projective techniques. One projective technique is to present the subject with beginnings of sentences and ask the subject to complete them.

For example:

I like \_\_\_\_\_ .

I dislike \_\_\_\_\_ .

My mother and I \_\_\_\_\_ .

Try completing the preceding sentences. Then make up five sentence-beginnings of your own. Try them out on yourself and then on a classmate. What similarities and differences in your responses do you find?

5. Another projective technique involves making up stories after looking at a picture. Look at the picture below and try making up a story. Ask yourself, What is happening now? What has gone on before? How is the story going to come out?

# Test Your Knowledge

---

Read each statement and decide whether it is true or false. Write your answers on a separate sheet of paper. You can check your answers in the back of the book.

1. One way of checking the reliability of a psychological instrument is to see whether the instrument gives consistent readings over time.
2. When making observations in psychology, it is usually unimportant to obtain a representative sampling of the subject's behavior.
3. Intelligence tests do not have any ability to predict performance in school.
4. Intelligence test scores may be misleading in the case of people who come from disadvantaged backgrounds.
5. The Thematic Apperception Test is an example of a test that uses the projective technique.
6. Ranking people is a less sensitive type of measurement than grouping them into two or three categories.
7. Holland's personality types can be matched with the characteristics of jobs.
8. Variability refers to the scattering of scores.
9. The standard deviation is a measure of variability.
10. An example of a negative correlation is the relationship between the amount of cigarette smoking and life expectancy.
11. The MMPI is a well-known aptitude test.
12. The answers to open-ended questions are much easier to analyze than the responses to closed-ended questions.
13. A hypothesis is a prediction that something specific will occur under certain conditions.
14. The observer in psychology pays attention only to what is said—never to nonverbal behaviors such as gestures and expressions.
15. The researcher using questionnaires must be concerned about having a representative sample if only certain kinds of people return the questionnaire.
16. A standardized achievement test permits the comparison of an individual's score with the scores of a large number of other people.
17. Psychologists use only one method of data gathering, the controlled experiment.
18. Reviewing the research efforts of others in professional journals is part of the early research process.
19. The statistical technique that allows researchers to examine the results of many studies together is called meta-analysis.

Choose the correct answer below based on what you learned from the reading.

20. Statistics

- A. are not an important tool in psychological research.
- B. are useful to describe the characteristics of large populations but are usually inappropriate in psychological research studies.
- C. are important tools to assess whether the findings of a psychological research study are a matter of chance.
- D. make no sense to use in psychology because people are much too complex to be described in numbers.

21. The mean and the median

- A. are calculated in exactly the same way.
- B. are both measures of average.
- C. are both measures of variability.
- D. will always be exactly the same number.