What Is Psychology?

Chapter 1: What Is Psychology?

Case Study: A Social Science vs. a False Science

Section 1: Why Study Psychology?

Section 2: What Psychologists Do

Section 3: A History of Psychology

Section 4: Contemporary Perspectives

Lab: Applying What You’ve Learned

Psychology is a social science based on verifiable evidence and theories that are tested according to the scientific method. False sciences, on the other hand, do not rely on verifiable evidence.

• Astrology is a false science
• Based on idea that the moon, stars, and planets can affect human personality and destiny
• Not grounded in facts

Social Science
• Psychology is a social science
• Based on findings that are subjected to careful scrutiny
• Grounded in facts

The Barnum Effect
The tendency to believe general personality reports such as horoscopes. Named after P.T. Barnum, who once said a good circus should “have something for everyone.” Horoscopes work the same way.

What do you think?
• What is the basic way in which psychology differs from false sciences?
• Why do you think false sciences are so widespread?
What Is Psychology?

Psychology is the scientific study of human behavior and mental processes. Psychologists seek to observe, describe, explain, predict, and modify behavior and mental processes. Psychologists rely on research to learn whether certain methods will work before they use them to help people.
What Is Psychology?

Why Study Psychology?

Main Idea
Psychology is a science. Like other scientists, psychologists seek to explain and control behavior and mental processes and test their ideas through research methods.

Reading Focus
• How are behavior and mental processes different?
• What are some basic goals of psychology?
• How is psychology a science?

Main Idea
Psychology is the scientific study of behavior and mental processes.

Behavior and Mental Processes
• Psychology is the scientific study of behavior and mental processes.
• Behavior is any action that people can observe or measure, such as walking, talking, sleeping, and eating.
• Cognitive activities are mental processes. They include dreams, perceptions, thoughts, and memories.
• Emotions can affect both behavior and mental processes.
• To study emotions, psychologists might use psychological constructs to help them study what we cannot see, touch, or measure directly.

Are self-help books psychologically sound?

Behavior and Mental Processes

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What Is Psychology?

Explaining Behavior
• Psychologists observe and describe behavior and mental processes to better understand them.
• Example: Sports psychologists can help athletes improve performance by measuring athletes’ heart rates and other body processes and by interviewing athletes.
• Psychologists explain behavior that might hinder an athlete’s performance.

Predicting and Controlling
• Psychologists predict that athletes perform best when anxiety is moderate.
• Psychologists help athletes control their behavior and mental processes by teaching them how to control anxiety.
• Positive visualization is one method sports psychologists use to help athletes perform better.
• Psychologists focus on helping people reach their own goals.

The Goals of Psychology

Answer: behavior and mental processes

Find the Main Idea
How do psychologists help change behavior?

Answer: by understanding factors that influence human behavior, teaching people how to filter out distractions and keep their anxiety at tolerable levels
What Is Psychology?

Psychology is a social science rooted in the natural sciences.

Social sciences include history, anthropology, economics, political science, and sociology. Natural sciences include biology, chemistry, and physics.

Some areas of psychology are closely related to the natural sciences. Both natural scientists and psychologists do scientific research to do their work.

Psychological Research

Two widely used research methods are surveys and experimentation.

Surveys collect data through questions asked of a particular group.

Experimentation usually involves people or animals. Some psychologists believe animal research can be applied to humans.

Psychological Theories

Psychologists organize research findings into theories.

A theory is a statement that attempts to explain why things are the way they are and why they happen as they do.

Theories help psychologists form principles. A principle is a basic truth or law.

Answer: Like the other sciences, psychology seeks to answer questions by following the steps involved in scientific research.
Neuroimaging and Cognitive Research

Neuroimaging allows scientists to study a human brain as it functions. Positron emission topography (PET) and magnetic resonance imaging (MRI) are two technologies that create images of the brain as it processes mental functions.

- Neuroimaging has been useful in cognitive research.
- Cognitive research is the study of mental processes and mental disorders.
- Neuroimaging may help psychologists diagnose and cure mental disorders.
- Neuroimaging has been used to study Alzheimer’s disease.
- Some psychologists are skeptical about the value of neuroimaging.
- They claim that neuroimaging shows how the brain behaves but tells little about how the mind, or conscious thought, works.

Current Research in Psychology

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What Is Psychology?

Thinking Critically

- Why might neuroimaging be an important aid in the treatment of mental disorders?
- Do you think neuroimaging has much practical application in psychology? Why or why not?

What Psychologists Do

- Major fields in psychology include clinical, developmental, and experimental psychology.
- Psychologists also work in applied or specialized fields, such as community, forensic, and health psychology.

Section 2 at a Glance

What Psychologists Do

Main Idea

Psychologists work in many different fields but they all focus on studying and explaining behavior and mental processes.

Reading Focus

- What are some of the major fields in psychology?
- How do specialists in some applied fields of psychology serve people’s needs?
You mean I'm supposed to talk to them?

Major Fields in Psychology

Clinical Psychology
- Most psychologists are clinical psychologists.
- Clinical psychology includes child mental health, adult mental health, learning disabilities, geriatrics, and general health.
- Clinical psychologists treat people with psychological problems such as anxiety or depression or severe psychological disorders.
- Psychologists are not psychiatrist. A psychiatrist is a medical doctor who specializes in psychological programs and who can prescribe medication for clients. Psychologists may not prescribe medication.

Counseling Psychology
- Counseling psychologists typically treat people who have adjustment problems.
- They often work in businesses or higher educational institutions.

School Psychology
- School psychologists identify and help students who have problems that interfere with learning.
- School psychologists use interviews, tests, and observation to help students.

Educational Psychology
- Educational psychologists focus on course planning and instructional methods for an entire school system rather than for an individual student.
- They focus on how learning is affected by psychological factors, cultural factors, economic factors, and instructional methods.
- Some educational psychologists help prepare standardized tests.
- They also study various tests to determine college success.
What Is Psychology?

### Personality Psychology
- Personality psychologists identify and study human characteristics, or traits.
- They are interested in the origins of psychological problems and disorders.
- Also they are concerned with issues such as anxiety, aggression, and gender roles.

### Developmental Psychology
- Developmental psychologists study changes that occur throughout a person's lifespan.
- These changes can be physical, emotional, cognitive, or social.
- Some development psychologists are especially interested in the challenges of adolescence.

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### Experimental Psychology
- Psychologists in all specialties may conduct experimental research, but experimental psychologists conduct research into basic processes such as functions of the nervous system, sensation and perception, learning and memory, and thinking and motivation.
- Experimental psychologists study the biological and psychological reasons for cognitive behavior. Biological psychologists study the relationship between biological changes and psychological events.
- Experimental psychologists are more likely than other psychologists to do basic research. Basic research is research that has no immediate application and is done for its own sake.

### Social Psychology
- Social psychologists are concerned with people's social behavior.
- They focus on external rather than internal influences.

### Reading Check

**Infer**
Which types of psychologists might treat patients with eating disorders?

**Answer:** clinical and developmental psychologists
What Is Psychology?

Specialized Fields

- Environmental Psychology: How people influence and are influenced by their physical environment.
- Comparative Psychology: The study of animal behavior across different species.
- Consumer Psychology: The study of the behavior of shoppers.

Careers in Psychology

Industrial and Organizational Psychology

- Industrial psychology: The study of people and work.
- Organizational psychology: The study of how people behave in organizations, such as business firms.
- Psychologists in this field are often trained in both areas.
- Employed by corporations to improve working conditions and increase output.

Human Factors Psychology

- Human factors psychologists try to find the best ways to design products for people to use.
- They consider how the product will be used, how the product affects people, how the product looks and feels, and how the product will be engineered so it is safe, durable, and comfortable to use.

Applied Fields in Psychology

Environmental psychology: study how light affects mental health; exposure to natural light reduces stress and improves mood.

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What Is Psychology?
What Is Psychology?

Community Psychology
• Community psychologists study and help create social systems that promote and foster individual well-being.
• Social systems might include mental health centers, hospital programs, and school-based programs.
• They focus on: promoting change in the social environment, helping relatively powerless people, preventing threats to mental health in the social environment.

Forensic Psychology
• Forensic psychologists work in the criminal justice system.
• They determine the psychological competence of defendants.
• They explain how psychological problems lead to criminal behavior.
• They work with police departments to help select police officers, help officers cope with job stress, train officers in the handling of dangerous situations, such as hostage crises, family violence, and suicide threats.

Health Psychology
• The study of how behavior and mental processes relate to physical health.
• Health psychologists study how stress affects health problems.
• They also focus on disease prevention.

Rehabilitation Psychology
• Rehabilitation psychologists work with people challenged by a disability.
• They help their patients develop strategies to compensate for their disability and live meaningful lives.

Cross-Cultural Psychology
• Cross-cultural psychologists study behavior and mental processes under different cultural conditions.
• They have brought new insights to standard psychological theories.
• Example: They have discovered that visual perception develops differently in cultures as a result of the shapes and angles people are exposed to every day.
What Is Psychology?

Reading Check

Summarize
What do forensic psychologists do?

Answer: testify about the psychological competence of defendants, explain how certain kinds of psychological problems give rise to criminal behavior, assist in selecting officers, help police officers cope with job stress and handle dangerous situations

Psychology in Today’s World

Inside the Criminal Mind
A horrific crime is committed. A psychological profiler examines the evidence. After he inspects the body, evaluates the footprint on the dusty floor, and scrutinizes the cryptic message scrawled on the wall, the profiler declares that the suspect is a young, white male who lives with his parents and is uncomfortable around women. Is he right? Probably not.

Thinking Critically
• Why do people want to believe that a reliable lie-detector test can be developed?
• Do you think a reasonable profile of a suspect can ever be deduced from crime scene evidence? Why or why not?

Psychology in Today’s World

• Profilers often give a broad description that could fit most people.
• Lie-detector tests are meant to help see inside the criminal mind, but they are often unreliable.
• There are no definite methods for detecting when a person lies.
A History of Psychology

- Psychology is as old as human history, with its roots going back to ancient Egypt and Greece.
- The scientific approach, which began in the 1500s, led to the birth of modern psychology in the 1800s.
- Modern psychologists continually propose new theories focused on behavioral and cognitive research.

Main Idea

Since ancient times, philosophers and scientists have studied behavior and mental processes. Psychologists throughout history have continued to refine and develop these studies.

Reading Focus

- What were some early views and beliefs about human behavior?
- Who were some of the pioneers of psychology?
- What modern developments in psychology have dominated much of the 20th century?
What Is Psychology?

What was the first psychological study?

Talk LIKE AN Egyptian

What was the first psychological study?

What Is Psychology?

Early Views and Beliefs

- Psychology is as old as human history.
- Written account of the interest in people's actions, motives, and thoughts can be traced to ancient times.

Ancient Greece

- Socrates developed a method of learning called introspection, which means to carefully examine our own thoughts and feelings.
- Aristotle outlined associationism, the theory that association with past experiences is a basic principle of mental activity.

The Middle Ages

- Most Europeans of this period believed that psychological problems were caused by possession by demons.
- They used certain tests to determine whether a person was possessed.

What Is Psychology?

Reading Check

Summarize

What basic foundations of psychology did the ancient Greeks set forth?

Answer: examining thoughts and feelings; studying human behavior; linking thoughts, feelings, and behaviors to biological factors.
What Is Psychology?

Wilhelm Wundt and Structuralism

- Wundt founded a field of psychology known as structuralism.
- Structuralism focused on the basic elements of consciousness.
- Wundt broke down consciousness into objective sensations and subjective feelings.
- Structuralists believed that the human mind functioned by combining objective sensations and subjective feelings.

Most historians of psychology point to the year 1879 as the beginning of psychology as a modern laboratory science. In that year, German psychologist Wilhelm Wundt established his laboratory in the city of Leipzig.

Pioneers in Psychology

Sigmund Freud and Psychoanalysis

- Freud was the most famous of the early psychologists.
- He developed psychoanalysis, which emphasizes unconscious motives and internal conflicts in human behavior.
- He developed psychodynamic thinking, which assumes that most of what exists in an individual's mind is unconscious and consists of conflicting impulses, urges, and wishes.
- He theorized that the key to human behavior is satisfying desires.

William James and Functionalism

- Experience is a continuous "stream of consciousness."
- James was one of the founders of functionalism.
- Functionalism is the study of how mental processes help organisms adapt to their environment.

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What Is Psychology?

Structuralism

Wilhelm Wundt
- Because Wundt established psychology as a field of study separate from philosophy and the natural sciences, Wundt is considered one of the founders of modern psychology.
- The lab Wundt set up in 1879 is still in operation today.
- He viewed mental processes as activities and classified feelings as pleasant or unpleasant, tense or relaxed, and excited or depressed.

What Is Psychology?

Functionalism

William James
- In addition to being the father of American psychology, James is considered one of America's greatest philosophers.
- Trained in medicine, James commented that the first lecture on psychology he ever heard was the first one he presented as a new instructor at Harvard.
- He believed that since the truth of an idea can never be known, we should focus instead on how practical or productive an idea is—its "use value," as he called it.

What Is Psychology?

Psychoanalysis

Sigmund Freud
- Freud's declaration that people essentially have little free will and are subject to the workings of the unconscious mind was highly revolutionary.
- He psychoanalyzed himself and extensively studied his own dreams, memories, and personality and concluded that he had many mental disorders and fears.
- Many psychologists were initially scandalized by Freud's emphasis on the sexual origins of psychological disorders.
What Is Psychology?

**Behaviorism**

John B. Watson
- Watson's most famous experiment involved conditioning a small child to fear a white rat by associating the rat with a loud, frightening sound.
- He believed that people have three basic emotional reactions: fear, rage, and love.

B. F. Skinner
- In contrast with Watson, Skinner believed that behavior depended on what happened after a stimulus—an event or sensation—and not before. He called this "operant behavior."

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**Reading Check**

Find the Main Idea

According to Freud, what is the key to people's behavior?

**Answer:** unconscious motives and internal conflicts

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**Modern Developments in Psychology**

**John B. Watson and Behaviorism**
- Founded the school of **behaviorism**, which defined psychology as the scientific study of observable behavior.
- Holds that people can be totally conditioned by external events and that belief in individual choice is just an illusion.

**B. F. Skinner and Reinforcement**
- Added to the behaviorist tradition by adding reinforcement.
- Showed that animals that are reinforced, or rewarded, for a certain action are more likely to perform that action again.
- Believed people learn in the same way animals do.
The Gestalt School

- **Gestalt psychology** is an alternative to behaviorism and structuralism.
- It was developed by German psychologists Max Wertheimer, Kurt Koffka, and Wolfgang Köhler.
- It is based on the idea that our perceptions of objects are more than the sum of their parts. They are wholes that give shape, or meaning, to the parts.
- Gestalt psychology rejects the structuralist idea that experience can be broken down into individual parts or elements.
- It also rejects the behaviorist idea that only observable behavior is important.

What Is Psychology?

Reading Check

**Draw Conclusions**

How do you think B. F. Skinner would view introspection?

**Answer:** He would probably dismiss it as unscientific.
Contemporary Perspectives

Some contemporary psychologists focus on the role of biology or the role of the mind in seeking to understand behavior and mental processes.

Other psychologists study how our personal experience affects how we perceive the world.

Still other psychologists take a more holistic approach and study the interaction of biology, psychology, and social factors and their combined impact on people.

Section 4 at a Glance

Main Idea

Contemporary psychologists have been influenced the work of earlier pioneers. They have expanded traditional research to develop new and different approaches.

Reading Focus

- What is the role of biology in behavior and survival?
- What role does the mind play in determining behavior?
- How does the role of experience affect behavior?
- What factors influence the biopsychosocial perspective?
What Is Psychology?

The Role of Biology

The Biological Perspective
• The biological perspective of psychology emphasizes the influence of biology on our behavior.
• Biologically oriented psychologists focus on connections between the brain and behavior.
• They also focus on the influences of hormones and genes.

The Evolutionary Perspective
• The evolutionary perspective focuses on the evolution of behavior and mental processes.
• Evolutionary psychologists suggest that many kinds of behavior patterns are examples of adaptive behavior.

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Reading Check

Draw Conclusions
What role does biology play in our mental processes?

Answer: The nervous system makes mental processes possible.

The Role of the Mind

The Cognitive Perspective
• The cognitive perspective emphasizes the role that thoughts play in determining behavior.
• The cognitive tradition has roots in Socrates’ maxim “Know thyself.”
• Many cognitive psychologists have been influenced by information processing and computer science.

The Humanistic Perspective
• The humanistic perspective stresses the human capacity for self-fulfillment and the importance of consciousness, self-awareness, and the capacity to make choices.
• According to this perspective, personal experiences are the most important aspect of psychology.
The Psychoanalytic Perspective

- The **psychoanalytic perspective** stresses the influence of unconscious forces on human behavior.
- Psychologists who follow this approach focus on conscious choice.
- Psychoanalytic thought no longer dominates the field, but its influence continues to be felt.

Humanistic psychologists believe that self-awareness, experience, and choice allow people to choose their own behavior, whereas psychoanalytic psychologists hold that unconscious forces shape human behavior.

**Reading Check**

**Compare and Contrast**

How do humanistic and psychoanalytic psychologists differ in their views of what drives behavior?

**Answer:** Humanistic psychologists believe that self-awareness, experience, and choice allow people to choose their own behavior, whereas psychoanalytic psychologists hold that unconscious forces shape human behavior.
The Role of Experience

The Learning Perspective

- The learning perspective emphasizes the effects of experience on behavior.
- In contrast, social-learning theory suggests that people can change their environments or create new ones.
- Psychologists who take the learning perspective believe that behavior is learned either from direct experience or by observing other people.

The Sociocultural Perspective

- The sociocultural perspective focuses on the influences of ethnicity, gender, culture, and socio-economic status on behavior and mental processes.

Reading Check

Find the Main Idea

How can ethnicity and gender affect cultural expectations and social roles?

Answer: by emphasizing individual differences
The Biopsychosocial Perspective

- The biopsychosocial perspective holds that mental processes are influenced by the interaction of biological processes, psychological dispositions, and social factors.
- This is a holistic approach that dates back to ancient Greece.
- The modern model was developed by American physician George Engel.
  - It was developed in relation to the treatment of heart disease.
  - Cultural, social, and psychological factors and genetic disposition as well as diet, exercise, stress levels, and financial status all have a bearing on heart disease, according to Engel.

Reading Check

Make Generalizations

What generalization can you make about the relation of the biopsychosocial approach to other psychological perspectives?

Answer: includes several other psychological perspectives

Cultural Diversity and Psychology

Bringing Diversity into Psychology

Psychology was dominated in the past by white men. Most of their research used white male participants and tended to explore issues that were relevant primarily to white men.

- Many psychologists today are women and members of ethnic groups.
- Psychological research is more diverse than ever.
- The work of African American psychologist Kenneth Bancroft Clark exemplifies such research. He studied the effects of segregation on black children.

Thinking Critically

- What do you think might have been the effects of segregation on white children?
- Why is it important for psychologists of different genders and cultural backgrounds to carry out research on behavior and mental processes?
What Is Psychology?

Public Perceptions of Psychology

What perceptions—and misperceptions—do people have about the field of psychology?

1. Introduction
   - In this lab, you will conduct a survey to find out how psychology is perceived by the general public.
   - You will compare your survey answers with those of your classmates.

2. Conducting the Survey
   - Develop answers for the survey questions.
   - Prepare the questionnaire.
   - Maintain a courteous and professional manner when administering the survey.

3. Evaluating the Responses
   - Study the survey responses and note any patterns.
   - Summarize the survey results. Write a paragraph about what the results reveal about people's perceptions of psychology.

4. Discussion and Writing
   - Get together with a small group of classmates.
   - Compare survey answers and discuss questions.
   - Write a paragraph that summarizes your own views on the discussion questions.
Successful survey takers engage their participants by asking follow-up questions that begin with "why" and "how."