

Unit 1

Psychology's History and Approaches

Overview

Psychology's historical development and current activities lead us to define the field as the science of behavior and mental processes. Unit 1 discusses the development of psychology from ancient times until today and the range of behaviors and mental processes investigated by psychologists in each of the various specialty areas. In addition, it introduces the biopsychosocial approach that integrates the three main levels of analysis followed by psychologists working from the seven major perspectives. Finally, an overview of the diverse subfields in which psychologists conduct research and provide professional services is given.

Modules

- 1 Psychology's History
- 2 Psychology's Big Issues and Approaches
- 3 Careers in Psychology

Tip #1 Vocabulary Cards

Making vocabulary cards can be a very useful tool in mastering all the new psychology jargon. See the example below for an example of the depth, detail, and content for your vocabulary card.

PSYCHOLOGY

The scientific study of behavior and mental processes

What do we mean by scientific?

What do we mean by behavior?

What do we mean by mental processes?

?? Why is the word *human* absent from the definition?

Module 1

Psychology's History

Before You Read

Module Summary

Module 1 introduces the foundations of thought that influenced and directed the growth of psychology. From the earliest philosophers debating the duality of mind and body to the more recent scientific methods of inquiry, psychology has grappled with the question of being, doing and thinking. This module discusses the key contributions of scholars, philosophers and scientists across the ages and sets the stage for the remainder of the course.

Before beginning the module, take a moment to read each of the following terms and names you will encounter. You may wish to make vocabulary cards for each.

Key Terms

empiricism
structuralism
functionalism
experimental psychology
behaviorism
humanistic psychology
cognitive neuroscience
psychology

Key Names

Socrates
Plato
Aristotle
René Descartes
Francis Bacon
John Locke
Wilhelm Wundt
G. Stanley Hall
Edward Titchener
William James
Charles Darwin
Mary Whiton Calkins
Margaret Floy Washburn
John B. Watson
B. F. Skinner
Sigmund Freud
Carl Rogers
Abraham Maslow

While You Read

1-1

Complete the following chart with details to support each early theorist's beliefs about the nature of mind, body, and innate and acquired knowledge. One has been filled in to get you started.



More information is given on Locke, Decartes and Darwin in Module 2. Make sure to leave some space in the table and return to the two charts below later to add the additional information that will complete your chart.

Theorist/ Philosopher	Viewpoint
Socrates	
Plato	<ul style="list-style-type: none"> • <i>Knowledge is innate—born within us</i> • <i>Mind is separable from body and continues after the body dies</i>
Aristotle	
René Descartes	
Francis Bacon	
John Locke	

1-2

Complete the following chart detailing the contributions and important milestones each of the early psychologists made to the field.

Psychologist	Contribution or Milestone
Wilhelm Wundt	
G. Stanley Hall	
Edward Titchener	
Charles Darwin	
William James	
Mary Whiton Calkins	
Margaret Floy Washburn	

1-3

Complete the following chart with information about the developments in psychology from 1920 to the present.

Psychologist	Psychological Approach to Explaining Behavior and Mental Processes	Key Terms
John B. Watson		
B. F. Skinner	<i>You should observe and record people's behavior to understand them</i>	
Sigmund Freud		
Carl Rogers		<i>Growth potential</i>
Abraham Maslow		

2. According to your text, what is the definition of psychology?

After You Read

Module 1 Review

Complete the Matching Questions below to see if you have mastered the basics.

Terms or Names

- _____ 1. Socrates
- _____ 2. empiricism
- _____ 3. Aristotle
- _____ 4. structuralism
- _____ 5. William James
- _____ 6. functionalism
- _____ 7. René Descartes
- _____ 8. experimental psychology
- _____ 9. Francis Bacon
- _____ 10. behaviorism
- _____ 11. John Locke
- _____ 12. humanistic psychology

Definitions or Associations

- A. British researcher who emphasized observation and experimentation
- B. French philosopher who believed the mind and body are separate
- C. Greek philosopher who believed that knowledge is innate
- D. Greek philosopher who believed knowledge comes from experience
- E. American functionalist
- F. The view that knowledge originates in experience and science should rely on observation and experimentation
- G. The field of psychology that believes only observable behavior is worthy of study
- H. The field of psychology that conducts experiments to study behavior and thinking
- I. An early school of thought that emphasized introspection as a tool to discover the structures of the mind.
- J. An early school of thought that questioned how behavioral process function and enable an organism to adapt, survive and flourish
- K. A British political philosopher who believed the mind at birth is a 'tabula rasa'
- L. Psychological perspective that emphasizes growth potential of healthy humans

Module 2

Psychology's Big Issues and Approaches

Before You Read

Module Summary

Module 2 tackles the enduring question of the influence of nature and nurture on organisms. The various levels of analysis and the myriad subfields of psychology are presented as a means to interpreting, explaining, and predicting behavior. This module concludes with an overview of the SQ3R study method and some additional study tips.

Before beginning the module, take a moment to read each of the following terms you will encounter. You may wish to make vocabulary cards for each.

Key Terms

nature–nurture issue

natural selection

levels of analysis

biopsychosocial approach

behavioral psychology

biological psychology

cognitive psychology

evolutionary psychology

psychodynamic psychology

social-cultural psychology

psychometrics

basic research

developmental psychologists

educational psychologists

personality psychologists

social psychologists

applied research

industrial-organizational psychologists

human factors psychologists

counseling psychologists

clinical psychologists

psychiatrists

positive psychology

community psychologists

testing effect

SQ3R

While You Read

2-1

Answer the following questions:

1. List a few of your more prominent traits: physical (for instance, eye color which is filled in for you), intellectual, personality, and so on that you feel either were inherited (nature) or arose from your environment (nurture).

Nature	Nurture
<i>eye color</i>	

Nurture works on what nature endows. (p. 10)

2. What do you think is meant by the statement above?

3. List and elaborate on at least two examples of your own traits—taken from your list above or new ones—that could make the above statement true in your life. For instance, if you wrote “*intelligence*” in the Nature column, discuss how your environment (nurture) contributed to or detracted from that trait.



More information is given on Locke, Decartes and Darwin in this module. Remember to return to your charts in Module 1 and add the additional information to make them more complete.

2-2

Consider the levels of analysis and varying perspectives your author gives to explain the emotion of anger. Using the trait of shyness, apply the seven perspectives to explain why a person might be shy. One is done for you as an example.

Perspective	This person is shy because . . .
Behavioral	she learned that when she is quiet and avoids eye contact, other people leave her alone. She feels pleasure at being left alone to think her own thoughts and daydream so is rewarded for being shy.
Biological	
Cognitive	
Evolutionary	
Humanistic	
Psychodynamic	
Social-cultural	

2-3

Complete the chart below by providing the focus of each of the subfields of psychology.

Subfields of Psychologists	Focus
psychometrics	
developmental	
educational	
personality	
social	
industrial-organizational	
human factors	
counseling	
clinical	
psychiatrists	
positive	
community	

After You Read

Module 2 Review

Complete the Matching Questions below to see if you have mastered the basics.

Terms

- _____ 1. biological perspective
- _____ 2. educational psychology
- _____ 3. developmental psychology
- _____ 4. cognitive perspective
- _____ 5. personality psychology
- _____ 6. industrial-organizational psychology
- _____ 7. behavioral perspective
- _____ 8. counseling psychology
- _____ 9. clinical psychology
- _____ 10. social-cultural perspective

Definitions

- A. The traits that govern our behavior and thoughts
- B. Optimizing human behavior in workplaces
- C. Genetic influence on individual differences
- D. Ethnic and regional differences in behavior and mental processes
- E. Influences on teaching and learning
- F. Assists with daily problems of functioning
- G. Life-span changes in our emotional, mental and physical abilities
- H. Thoughts' and memories' impact on behavior
- I. Effects of learning and environment on behavior and thoughts
- J. Assesses and treats psychological disorders

Module 3

Careers in Psychology

Before You Read

Module Summary

Module 3 builds on the introduction of psychology's subfields from Module 2 and provides additional information regarding the vast opportunities and specialized focus of the varied career paths.

While You Read

3-1 Complete the two tables below:

Basic Research Subfields of Psychology	Examples of Work These Psychologists Do
Cognitive	
Developmental	
Educational	
Experimental	
Psychometric/ Quantitative	
Social	

Applied Research Subfields of Psychology	Examples of Work These Psychologists Do
Forensic	
Health	
Industrial-Organizational (I/O)	

Applied Research Subfields of Psychology	Examples of Work These Psychologists Do
Neuropsychology	
Rehabilitation	
School	
Sport	
Clinical	
Community	
Counseling	

After You Read

Module 3 Review

Complete the review questions below to see if you have mastered the basics.

Which psychologist would you consult with if you:

1. are a Major League Baseball player who is in a slump? _____
2. are a corporate executive that wants to increase employee morale? _____
3. work for the Centers for Disease Control and want to start a program to prevent the spread of sexually transmitted diseases? _____
4. want to develop a valid, reliable test to measure student performance in a school district? _____
5. want to reform the child-care institutions in this country? _____
6. suffer from schizophrenia? _____
7. have a child you suspect may have a learning disability? _____
8. just moved to a new town and are feeling out-of-place and sleeping more than usual? _____
9. want to make changes to the way you think about and perceive the world? _____
10. sustained a concussion in a soccer game and believe you may have a serious head injury?

✓ Check Yourself

Now that you have mastered the basics, work through the problems below to see if you can *synthesize* what you have learned.

1. Describe one way in which Titchener's ideas of structuralism and James' emphasis on functionalism differ.
2. Discuss the arguments behaviorists Watson and Skinner may have had with James regarding the study of human behavior.
3. How might Sigmund Freud have differed from the behaviorists in his ideas of human behavior?
4. In what way did the theories of humanists Rogers and Maslow run counter to those of their predecessors, Freud and Watson?
5. In what way do the cognitivists agree with the early theorists' ideas of structuralism?

✓ Check Yourself

Now that you have mastered the basics and can apply your knowledge, work through the case study below to see if you can *evaluate* and *analyze* using the basic material you have learned. You are not diagnosing the patient in the case, simply explaining her behavior through the lens of each listed approach.

Norah is a 6-year-old girl who is often disobedient. She frequently throws temper tantrums and refuses to finish her meals. Her parents come to you, a well-respected psychologist in your town, asking for your thoughts on why they are having such difficulties with her. How would you explain Norah's behavior to her parents if you were a:

Humanist? It is obvious to me, as a humanist, that your daughter Norah's difficulties stem from...

Behaviorist? It is obvious to me, as a behaviorist, that your daughter Norah's difficulties stem from...

Psychoanalyst (Freudian)? It is obvious to me, as a psychoanalyst, that your daughter Norah's difficulties stem from...

In what ways might you find the four approaches above to be limiting in their ability to help you explain Norah's behavior?

Cognitivist? It is obvious to me, as a cognitivist, that your daughter Norah's difficulties stem from...

✓ Check Yourself

Now that you have mastered the basics, work through the problem below to see if you can *synthesize* what you have learned.

A famous television and movie actor is repeatedly in and out of rehabilitation centers for drug and alcohol abuse. She began her career as the lead in a popular children's show and spent a decade starring in both Hollywood movies and television dramas. Now, in her late-twenties, she is a regular feature in the celebrity magazines and tabloids for her bizarre public outbursts, illegal behavior and edgy lifestyle. Finally, as a result of a court-order, she has sought psychological counseling and assessment. She is finding it hard to decide on a permanent psychologist because she is receiving conflicting explanations for her lack of functioning. Using your knowledge from Module 2, discuss how each of the perspectives/levels of analysis below might be utilized to explain the actor's behavior. Create specific examples that would apply.

1. A behaviorist:
2. A biopsychologist:
3. A cognitive psychologist:
4. An evolutionary psychologist:
5. A humanist:
6. A psychodynamic/psychoanalytic psychologist:
7. A socio-cultural psychologist:



Before You Move On

Use the checklist below to verify your understanding of the unit's main points.:

- Do I know the difference between structuralism and functionalism?
- Do I know the seven main approaches to understanding and explaining behavior?
- Do I know the subfields of psychology?
- Do I know the major historical figures in psychology from the ancient Greeks through the theorists of the 1900s?
- Do I know the definition of psychology?
- Do I know the careers available in psychology?

Module 7

Statistical Reasoning in Everyday Life

Before You Read

Module Summary

Module 7 describes the three measures of central tendency and discusses the usefulness of the two measures of variation. The concept of statistical significance is explained and the criteria necessary to generalize experimental results is introduced.

Before beginning the module, take a moment to read each of the following terms you will encounter. You may wish to make vocabulary cards for each.

Key Terms

descriptive statistics
mode
mean
median
skewed distribution

range
standard deviation
normal curve
inferential statistics
statistical significance

While You Read

Answer the following questions/prompts.

7-1

1. What are the three measures of central tendency, and what purpose does each of these measures serve?
2. Outliers, or extreme, "way-out" data that are significantly different from the majority of the data, have what effect on:
 - a. the mean?
 - b. the median?
 - c. the mode?

3. Define what the range for a set of scores is, and identify the range of the following set: 29, 39, 40, 52, 55, 80.

4. What does the standard deviation tell us?

5. What would a large standard deviation indicate?

6. What would a small standard deviation indicate?

7. Using Figure 7.3 from the textbook, write the percentage of scores on a normal curve that fall within one standard deviation. Next, write the percentages that fall within two and three standard deviations.

8. Now that you have been introduced to the basics of descriptive statistics, review the following calculations and practice with the sample data below.

7, 15, 20, 4, 8, 5, 4

Measures of central tendency:

- a. Calculate the mean, median and mode of the data above.

mean _____

median _____

mode _____

☞ *Point to note:* The mean can be pulled in the direction of the outliers, so often the median is a better measure of central tendency.

☞ *Point to note:*

- If there are an odd number of data, the median will be the number in the middle after the data is arranged from highest to lowest.

2, 4, 6, 8, 10: 5 data points; median is 6

- If there are an even number of data, the median will be the mean (average) of the two middle numbers after the data is arranged from highest to lowest.

2, 4, 6, 8, 10, 12: 6 data points; mean is average of $(6+8)/2$, or 7

☞ *Point to note:* If more than one data point occurs with frequency, the data can be referred to as bimodal or multimodal.

Measures of variation: *How similar or diverse are the data?*

b. Calculate the range of the data. _____

☞ *Point to note:* When you take the highest number and subtract the lowest number, the result is the range.

c. Now find the standard deviation of the data, following the steps below.

1. Find the mean of your data
2. Find the difference between each number and the mean
3. Square each individual difference
4. Add up all of the squared numbers
5. Divide by the number of data points (This value is referred to as the variance. Variance is the average difference between individual data points in the distribution and the mean.)
6. Find the square root of the quotient from #5

You may use Table 7.1 from the text for reference (pg. 59) if you need help.

Data	Deviation from the mean	Squared deviation
7		
15		
20		
4		
8		
5		
4		
Mean of data:	Sum of squares:	

$$\sqrt{\frac{\text{Sum of squared deviations}}{\text{Number of scores}}} =$$

Point to note: In a way, this is rather like taking the average of the average—a better way to decide how different data points are from each other.

7-2

1. What is the difference between descriptive statistics and inferential statistics?
2. What are the three principles to keep in mind when deciding to generalize from a sample?
3. In the field of psychology, what is the standard for deciding if a result is statistically significant?
4. What does it mean if a result is statistically significant?

After You Read

Module 7 Review

Complete the questions below to see if you have mastered the basics.

3, 6, 6, 8, 9, 22

1. Given the data set above, identify the
 - a. mean _____
 - b. median _____
 - c. mode _____
2. Which measure of central tendency should be used to most accurately describe the data above? Why?
3. Using the data set above, identify the
 - a. range _____
 - b. standard deviation _____

4. Assume a distribution of aptitude test scores forms a normal curve with a mean of 100 and a standard deviation of 15.
 - a. Within which standard deviation will most of the scores fall?

 - b. If a student scores a 120, within which standard deviation will that score fall?

 - c. If a student scores within the second deviation, what is the possible range of the student's score?

5. Assume your class took a final exam in psychology in which the scores produced a normal curve with a mean score of 80 and a standard deviation of 5.
 - a. 68% of the scores on the final exam would fall between _____ and _____.

 - b. If a student scores within two standard deviations from the mean, what is the possible range of the student's score?

 - c. What percentage of students may have scored either higher than 90 or lower than 70?