

Chapter One

The Science of Psychology

The Nature of Psychology

- Psychology: the scientific study of behavior and the mind
 - Behavior: directly observable actions and responses
 - Mind: internal states and processes that are not directly observable
 - Must be inferred from observable, measurable responses

Psychology As Science

- Basic Research: the quest for knowledge purely for its own sake
 - Examines how and why people behave, think, and feel the way they do
- Applied Research: designed to solve specific, practical problems
 - Uses basic scientific knowledge to design, implement, and assess information
- Robber's Cave example

Goals of Psychology

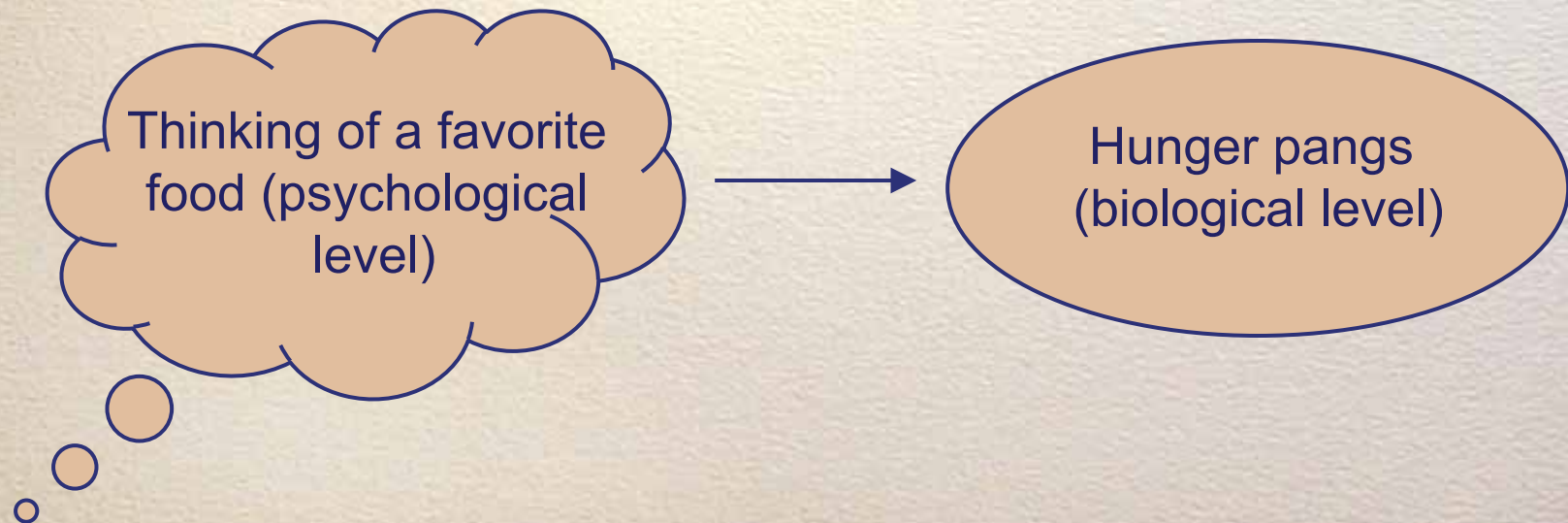
- To *describe* how people and other species behave
- To *understand* the causes of these behaviors
- To *predict* how people and animals will behave under certain circumstances
- To *influence* behavior through the control of its causes
- To *apply* psychological knowledge in ways that enhance human welfare

Levels-Of Analysis Framework

- Levels of Analysis:
 - Biological level: behaviors and its causes
 - Psychological level: thoughts, feelings, and motives
 - Environmental level: past and current physical and social environments to which we are exposed

Levels-Of-Analysis Framework

- Mind-Body Interactions: the relationship between mental processes in the brain and the functioning of other bodily systems



Levels-Of-Analysis Framework

- Nature vs. Nurture Debate: are we shaped by nature (biology) or nurture (environment)?
 - Modern theories focus upon a more balanced interaction



Perspectives on Behavior

- Perspectives: different ways of viewing people
 - Serve as lenses through which psychologists examine and interpret behavior
 - Influenced by philosophy, medicine, sociology, anthropology, and more



Psychology's Intellectual Roots

- Mind-Body Problem: are the mind and body separate or connected?
 - Mind-Body Dualism: the mind is a spiritual entity not subject to physical laws that govern the body
 - Monism: the mind and body are the same; the mind is not spiritually separate from the body

Psychology's Intellectual Roots

- British Empiricism: philosophers that believed that all ideas and knowledge are gained empirically through the senses
 - Observation is a more valid approach to knowledge than reason

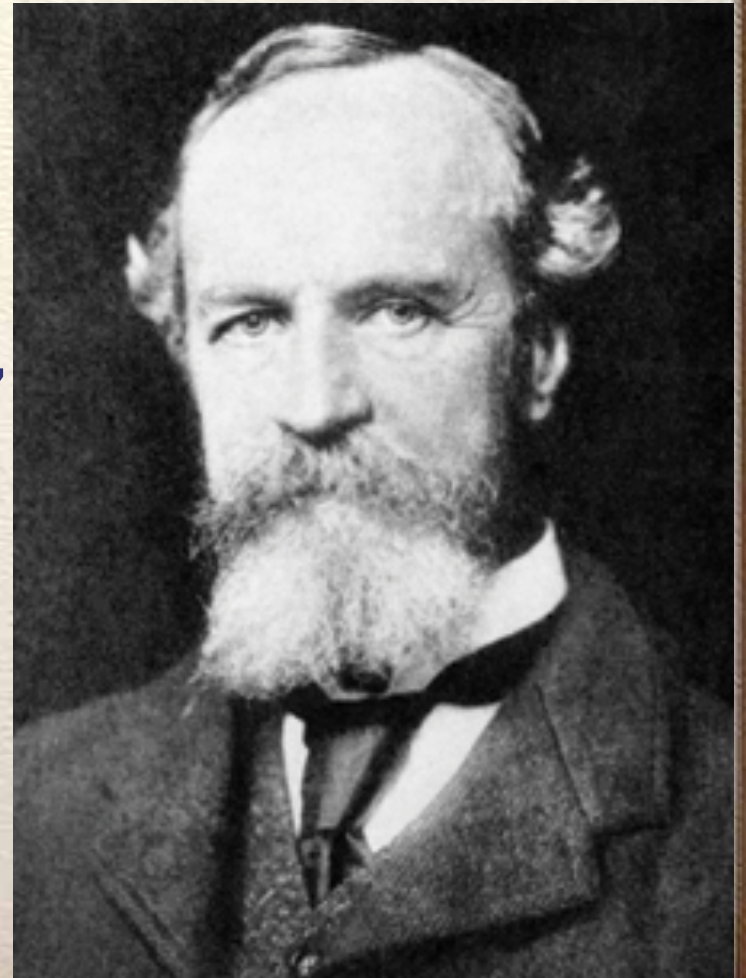
Structuralism

- Wilhelm Wundt established the first experimental psychology laboratory (Germany, 1879)
- Structuralism: the analysis of the mind in terms of its basic elements
 - Used introspection to study the details of sensation

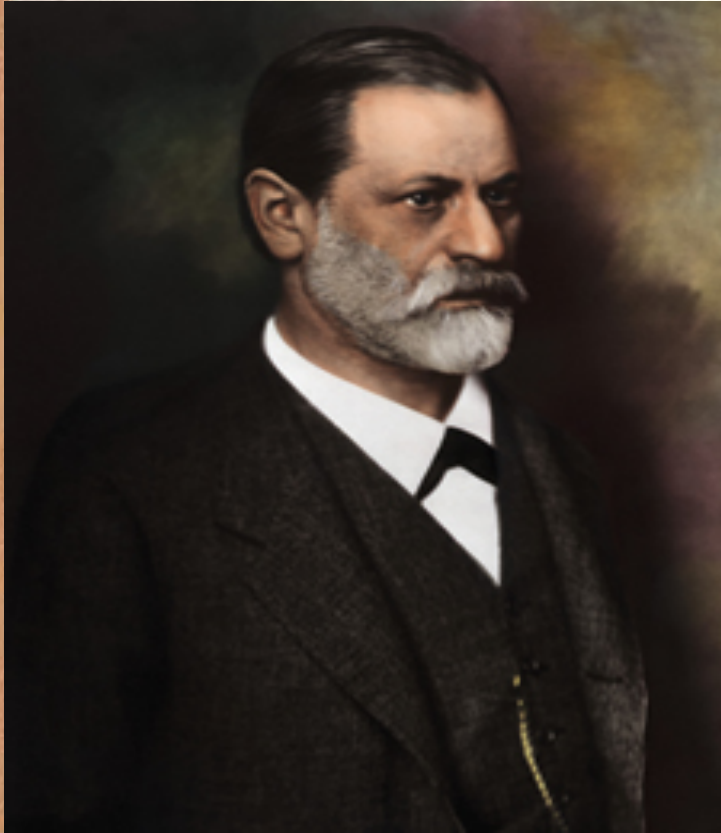


Functionalism

- Functionalism: psychology should study the functions of consciousness rather than its structure
 - Focused on “how” and “why”
- William James
- Modern-day offshoots: cognitive and evolutionary psychology



Psychodynamic Perspective



- Searches for the causes of behavior within the inner workings of our personality, emphasizing the role of unconscious processes
- Psychoanalysis: the analysis of internal and primarily unconscious psychological forces
 - Developed by Sigmund Freud

Psychodynamic Perspective

- Defense Mechanisms: psychological techniques that help us cope with anxiety and the pain of traumatic experiences
- Strong emphasis on childhood sexuality and aggressive, inborn drives
- Used Free-Association to uncover unconscious motives
- Extremely controversial theory
 - Mixed empirical research
 - Inspired additional research

Psychodynamic Perspective

- Modern Psychodynamic Theory:
 - Downplays the importance of hidden sexual and aggressive motives
 - Focuses instead on how unconscious processes affect behavior

Behavioral Perspective

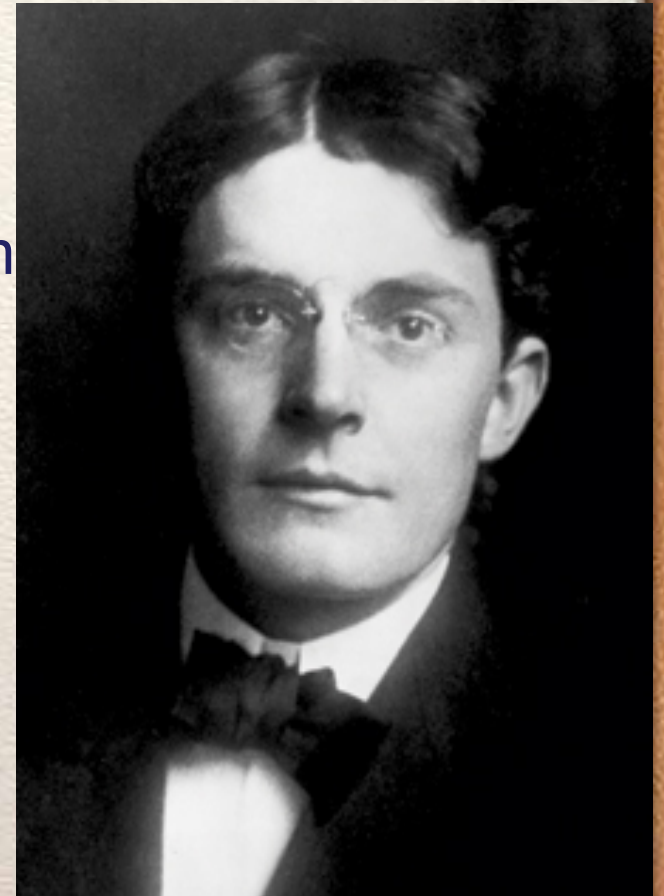
- Focuses on the role of the external environment in governing our actions
- Origins of the behavioral perspective:
 - “Tabula Rasa” (Locke): at birth, the human mind is a “blank slate”
 - Classical Conditioning (Pavlov): environment can shape behavior through association
 - Law of Effect (Thorndike): positive consequences will increase the likelihood of a behavior, and vice-versa

Behavioral Perspective

- Behaviorism: the school of thought that emphasizes environmental control of behavior through learning (John B. Watson, B.F. Skinner)
 - Psychology should only study observable behavior - not unobservable inner consciousness
 - Behavior is determined by:
 - prior learning experiences
 - stimuli in current environment

Behavioral Perspective

“Give me a dozen healthy infants, well-formed, and my own specialized world to bring them up in and I’ll guarantee you to take any one of them at random and train him to become any type of specialist I might select - doctor, lawyer, artist, merchant-chief, and, yes, even beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors” - John Watson



Behavioral Perspective

- Cognitive Behaviorism: learning experiences and the environment influence our expectations and other thoughts, and in turn our thoughts influence how we behave

Humanistic Perspective

- Emphasizes free will, personal growth, and the attempt to find meaning in one's existence
 - Challenged psychodynamic and behaviorist theories
- Self-Actualization: the inborn motive to reach one's full potential
- Positive Psychology: a movement within psychology that emphasizes the study of human strengths, fulfillment, and optimal living

Cognitive Perspective

- Examines the nature of the mind and how mental processes influence behavior
- Origins of the cognitive perspective:
 - Gestalt Psychology: examined how elements of experience are organized into wholes



Cognitive Perspective

- Modern cognitive perspective focuses on the study of mental processes
 - Reasoning, decision-making, perceptions, language, problem-solving, etc.
- Cognitive Neuroscience: field that uses electrical recording and brain-imaging techniques to examine brain activity while people engage in cognitive tasks
- Social Constructivism: cognitive viewpoint that maintains that what we consider “reality” is largely our own mental creation

Sociocultural Perspective

- Examines how the social environment and cultural learning influence our behavior, thoughts, and feelings
 - Culture: the enduring values, beliefs, behaviors, and traditions that are shared by a large group of people and passed from one generation to the next
 - Norms: rules that specify what behavior is acceptable and expected for members of that group
 - Socialization: the process by which culture is transmitted to new members and internalized by them

Sociocultural Perspective

- Cultural Psychology: explores how culture is transmitted to its members and examines psychological similarities and differences among people from diverse cultures
 - Individualism: emphasis on personal goals and self-identity based primarily on one's own attributes and achievements
 - Collectivism: individual goals are subordinated to those of the group; personal identity is defined by extended family and other social groups

Biological Perspective

- Examines how brain processes and other bodily functions regulate behavior
- Behavioral Neuroscience: examines brain processes and other physiological functions that underlie our behavior, sensory experiences, emotions, and thoughts
 - Neurotransmitters: chemicals released by nerve cells that allow them to communicate with one another

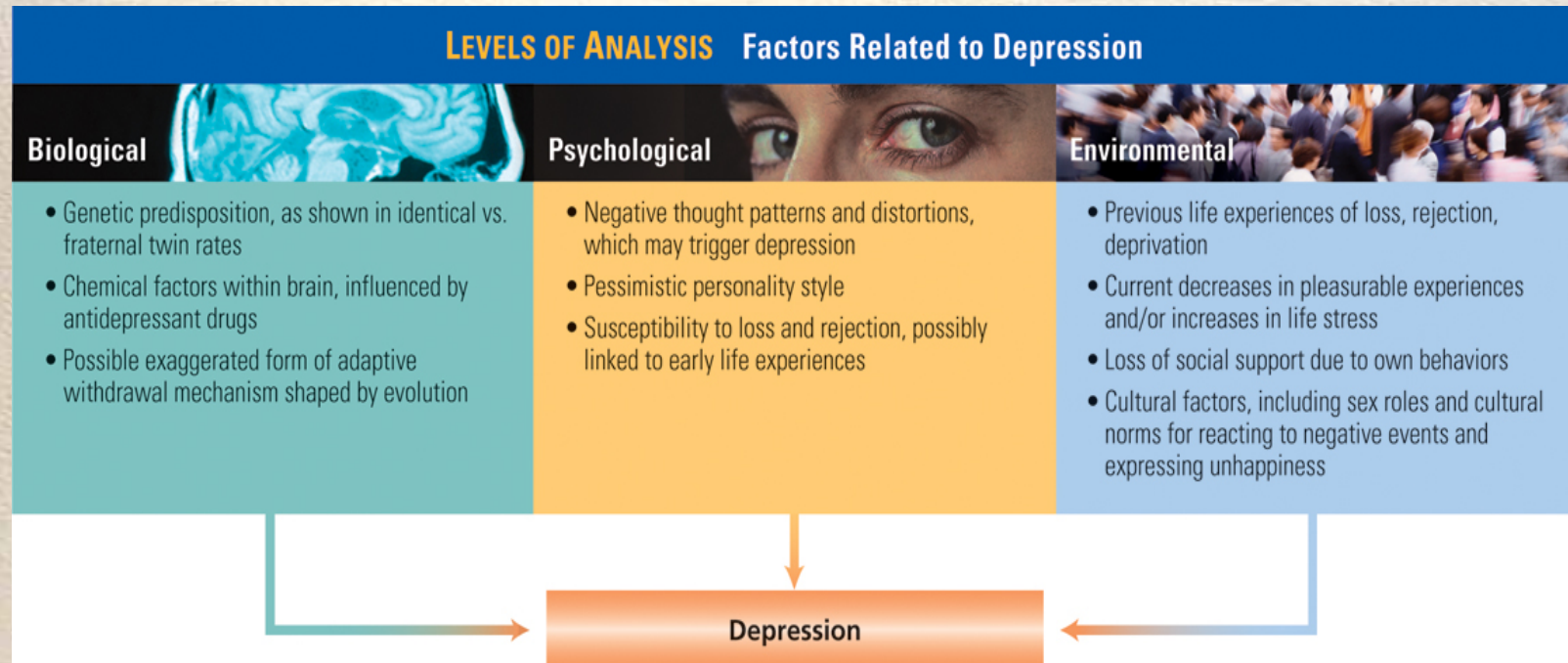
Biological Perspective

- Behavior Genetics: the study of how behavioral tendencies are influenced by genetic factors
- Evolutionary Psychology: seeks to explain how evolution shaped modern human behavior
 - Natural Selection: if an inherited trait gives certain members an advantage over others, these members will be more likely to survive and pass these characteristics on to their offspring

Integrating the Perspectives

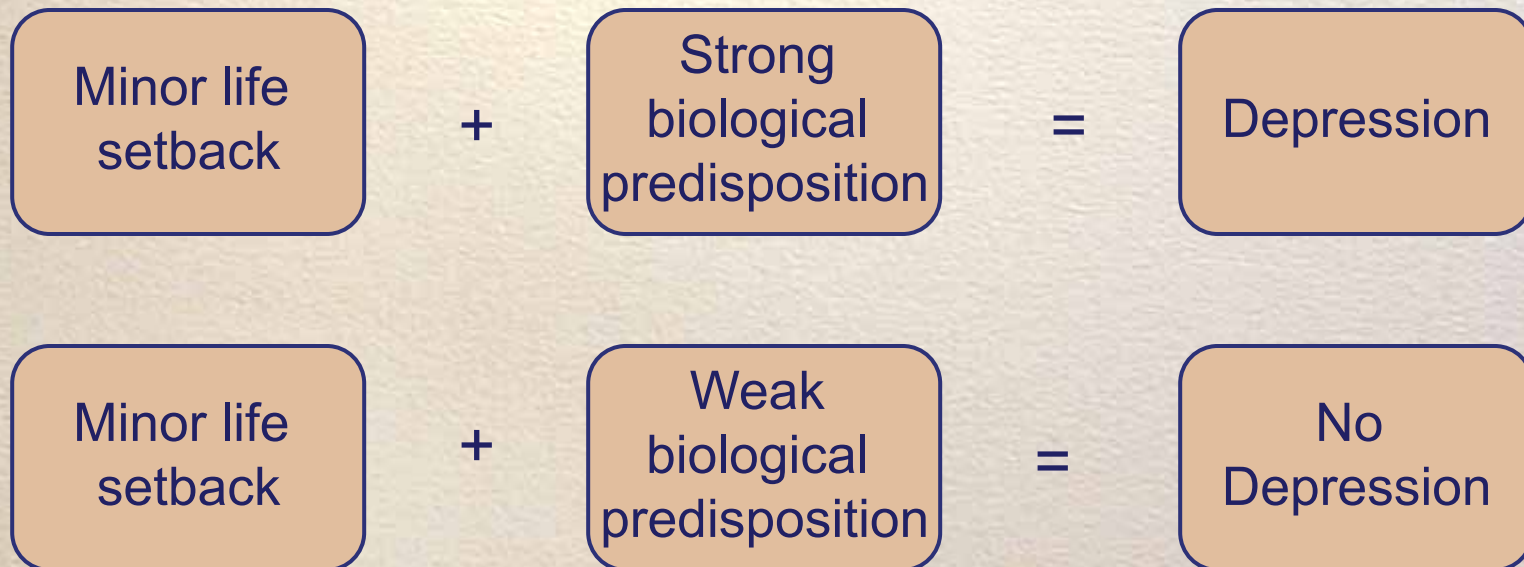
- Biological Level:
 - Brain functioning and hormones
 - Genetic factors shaped by evolution
- Psychological Level:
 - Thinking, memory, and attention
 - Desires, values, expectations, personality characteristics
 - Conscious and unconscious influences
- Environmental Level:
 - Stimuli in immediate physical and social environment
 - Previous life experiences
 - Cultural norms and socialization processes

Integrating the Perspectives



Integrating the Perspectives

- Interaction: the way in which one factor influences behavior depends on the presence of another factor



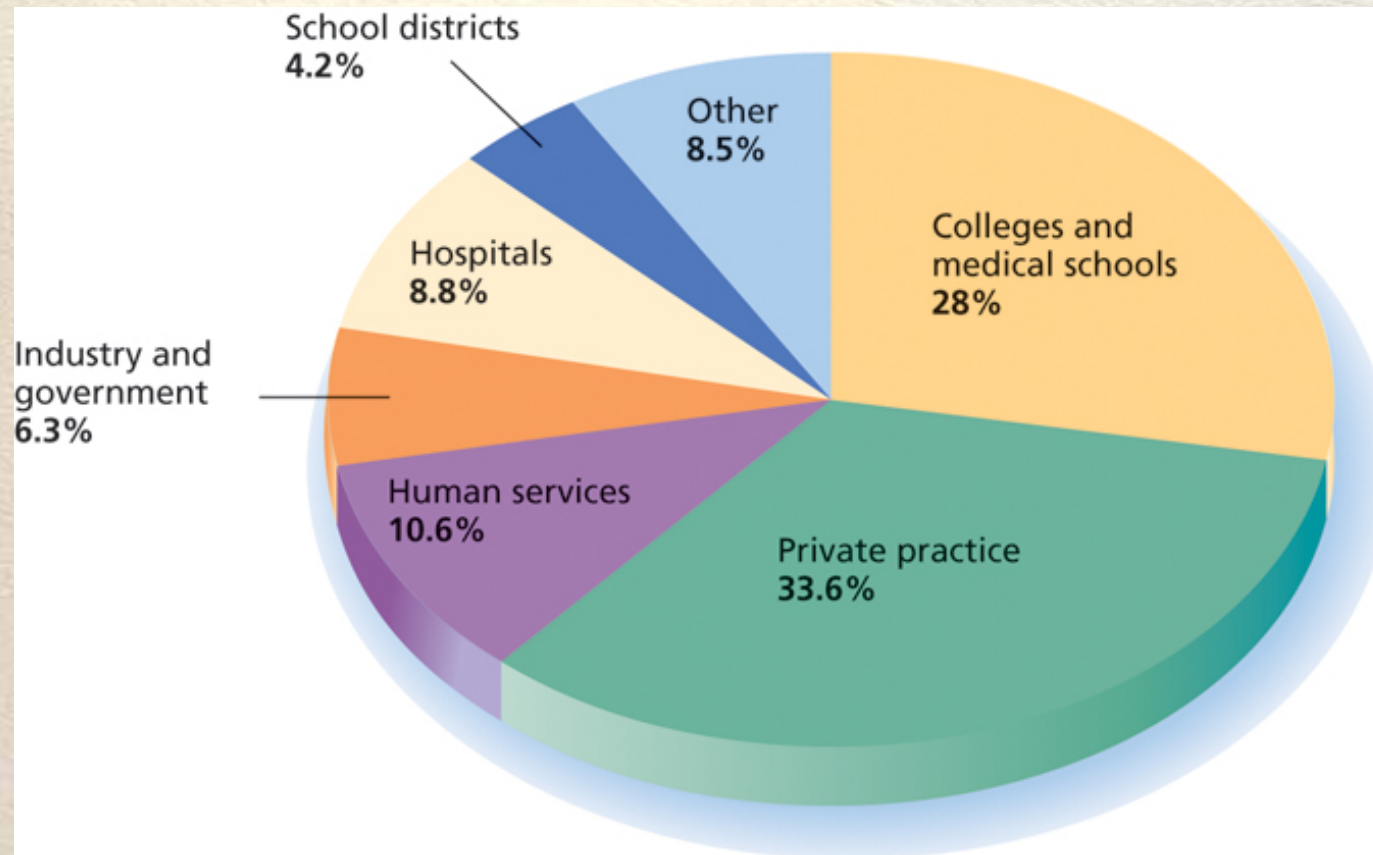
Summary of Major Themes

- Psychology is an empirical science
- Psychologists recognize that our personal view of the world is subjective
- Behavior is determined by multiple causal factors, including nature, nurture, and psychological factors
- Behavior is a means of adapting to environmental demands
- Behavior and cognitive processes are affected by our environment

Psychology Today

- American Psychological Association (APA)
 - Founded in 1892; largest single psychological association in world
 - 56 organizational divisions and 150,000 members
 - Seeks to advance psychology as a science and profession
- American Psychological Society (APS)
 - Founded in 1988
 - Over 15,000 members
 - Seeks to advance scientific psychology

Careers In Psychology



Psychology and Public Policy

- Increasing emphasis on evidence-based public policies that utilize both basic and applied research
- Psychologists design, implement, and assess intervention programs
 - Psychological science informs public policy in areas such as education, violence prevention, and mental health