

# **What is Psychology?**

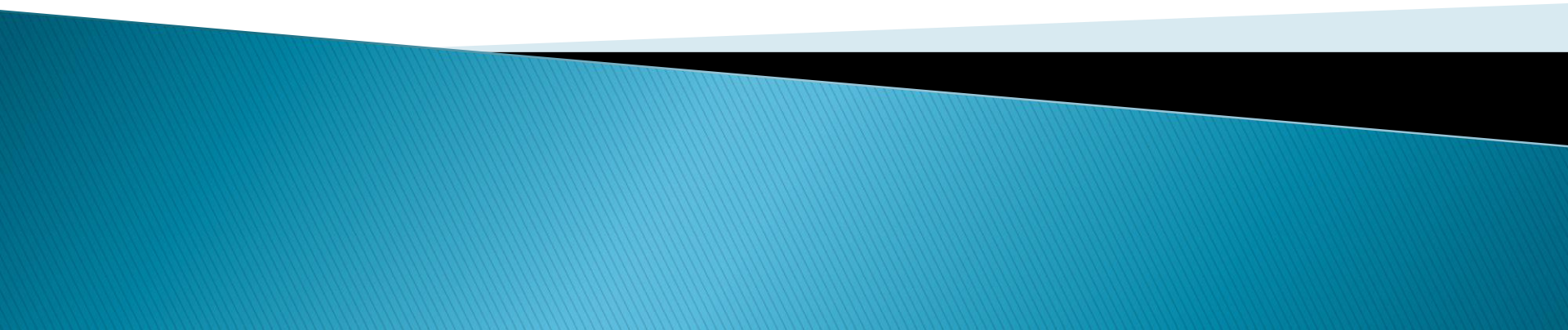
## **An introduction about themes.**

**By**

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**for M.Phil Psychology UOS**



# PSYCHOLOGY

- ▶ What is Psychology?
  - The word *psychology* derives from Greek roots:
  - Psyche – “soul” or “mind,” Logos – “word”
- ▶ Psychology is the systematic study of behavior, thought, mood, experience, and related biological processes.

# Psychology is a Science

- ▶ Social Science, Behavioral Science, Neuroscience
- ▶ What does it mean to be a science?
- ▶ Other behavioral sciences
  - Psychiatry
  - Economics

# Module 1.1

- ▶ The Goals of Psychologists

# Psychologists' Goals

- ▶ We study psychology in order to understand, explain, predict, and change behavior
- ▶ What major philosophical issues are relevant to psychology?

# Psychologists' Goals

- ▶ General Points about Psychology
  - “It Depends” (Few things are true of all people all the time in all circumstances)
  - Research Progress Depends on Good Measurement
  - Correlation Does Not Indicate Causation

# Psychologists' Goals

- ▶ **General Points about Psychology**
  - Variations among Individuals Reflect Both Heredity and Environment
  - The Best Predictor of Future Behavior is Past Behavior in Similar Situations
  - Some Statements in Psychology Reflect Stronger Evidence Than Others

# The Major Philosophical Issues

- ▶ Free will versus determinism – are the causes of behavior knowable and is behavior predictable?
  - Free will – the belief that behavior is caused by an individual's independent decision-making
  - Determinism - the assumption that everything that happens has a identifiable and observable cause



# Major Philosophical Issues

- ▶ Which perspective holds that behavior is fully predictable?
  - Determinism: Everything that happens has a knowable cause
  - Free Will: Even assuming complete information about causes and conditions, predictions of human behavior may not be fully accurate

# Major Philosophical Issues

- ▶ The mind-brain problem: How is experience related to the organ system called the brain?
  - Dualism - The mind is separate from the brain but controls the body through it
  - Monism - Conscious experience is generated by and inseparable from the brain

# Major Philosophical Issues

- ▶ The mind-brain problem
  - Data from brain imaging research suggests that brain activity and mental activity are aspects of the same thing
  - The question is not yet resolved

# Major Philosophical Issues

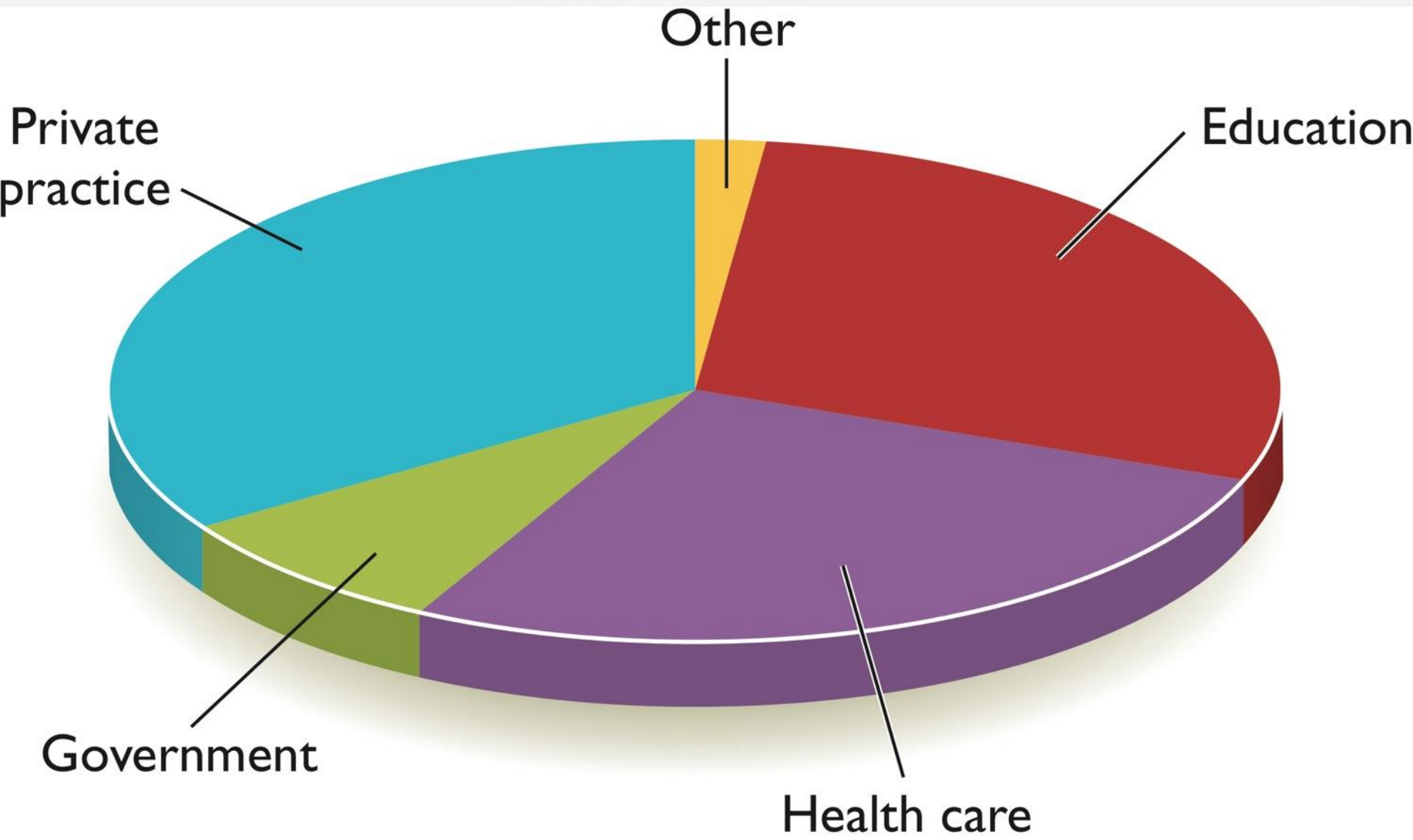
- ▶ The nature-nurture issue
  - How do variations in behavior reflect different levels of influence from heredity or environment?
  - Some scientists assume the larger proportion of differences in potential and behavior are due to genetic influences

# Major Philosophical Issues

- ▶ The nature-nurture issue
  - Others assume that most differences stem from the aspects of the environment - culture, expectations, and resources
  - This issue arises in many areas of psychology
  - Knowledge gained through research provides few simple answers

# What Psychologists Do

- ▶ Psychology is an academic, non-medical discipline with many branches and specialties
  - The educational requirements vary, but generally involve study beyond the bachelor's degree
  - A master's degree, or a Ph.D./PsyD. (doctor of psychology) are common terminal degrees



(Based on data from U.S. Department of Labor, 2008.)

# What Psychologists Do

- ▶ There are many specialties in the broad science of psychology. Psychologists practice in three main areas:
  - Service providers to individuals
  - Service providers to organizations
  - Teaching and research



# What Psychologists Do

- ▶ Service providers to individuals
  - There are many types of psychotherapists, professionals with training in psychology who specialize in helping people with emotional and mental problems.
  - Psychotherapists are trained in different disciplines.

# What Psychologists Do

- ▶ Service providers to individuals
  - Clinical psychologists have advanced degrees in psychology. They help people with mental and emotional problems
  - To better understand their clients, clinical psychologists receive training in intellectual and psychological testing used in diagnosis and treatment

# What Psychologists Do

- ▶ Service providers to individuals
  - Psychiatrists are trained as medical doctors
  - In addition to training in psychology, they are educated in how to use prescription drugs to treat psychological distress

# What Psychologists Do

- ▶ Service providers to individuals
  - Psychiatric nurses receive standard nursing education plus additional training in the care of emotionally troubled individuals
  - They work in medical clinics and hospitals

# What Psychologists Do

- ▶ Service providers to individuals
  - Psychiatric and clinical social workers combine training in social work with specialized knowledge related to treatment of and advocacy for the well-being of emotionally disturbed people in the larger community

# What Psychologist Do

- ▶ Service providers to individuals
  - Psychoanalysts are therapists who use treatment strategies based on theories and methods pioneered by Sigmund Freud
  - He believed that an unconscious component of the human mind affects everyday psychological functioning

# What Psychologists Do

- ▶ Service providers to individuals
  - Counseling psychologists have advanced degrees in psychology. They help people with educational, vocational, marriage, health, and other important life decisions. They are trained psychotherapists
  - Some also do psychological testing

# What Psychologists Do

- ▶ Service providers to individuals
  - Forensic psychologists provide advice and consultation in the legal and criminal justice systems



## Concept Check

- ▶ Which psychotherapist would help a middle-aged woman transitioning from work as a homemaker back to college?
  - *Counseling psychologist*
- ▶ Which psychotherapist would prescribe a mood stabilizing medication to a patient diagnosed with bipolar disorder?
  - *Psychiatrist*

## Concept Check

- ▶ Which psychotherapist does assessment and therapy in an inpatient facility for developmentally delayed children and adolescents?
  - *Clinical psychologist*
- ▶ Which psychotherapist helps a patient discover hidden motivations for a distressing and unacceptable behavior or thought?
  - *Psychoanalyst*

# What Psychologists Do

- ▶ Service providers to organizations
  - Industrial/Organizational psychologists study behavior in the workplace
  - They may use a combination of social, cognitive, and motivational psychology principles to describe and explain workplace behavior
  - Some also use personality tests and interest inventories

# What Psychologists Do

- ▶ Service providers to organizations

- Industrial/Organizational psychologists

Sample question: Workers in two departments at an engineering firm are withholding information from each other. This is harming company morale and productivity. Can this be remedied without firing or moving any employees?

# What Psychologists Do

- ▶ Service providers to organizations
  - An ergonomist, or human factors specialist, facilitates the design of machinery and equipment so that the average user can operate them efficiently and safely.

Sample question: How can a clerical workstation be designed to minimize the possibility of employees' sustaining repetitive stress injuries?

# What Psychologists Do

- ▶ Service providers to organizations
  - A school psychologist assesses the psychological condition and educational performance of students in grades K-12
  - They use developmental, learning, and motivational principles and educational and psychological tests to create plans for individual students

# What Psychologists Do

- ▶ Service providers to organizations

- School psychologists

Sample question: Does a fourth-grade student's declining grades indicate the presence of a learning disability or an emotional problem?

## Concept Check

- ▶ Which psychologist would work at a software development company to improve communication between departments and levels of management?
  - *Industrial/organizational psychologist*



# What Psychologists Do

- ▶ Teaching and research
  - Most teaching psychologists work in colleges and universities
  - Most psychologists who teach also engage in research and writing
  - Some psychologists are employed in full-time research positions

# What Psychologists Do

- ▶ Major categories of psychological research:  
Developmental psychology
  - A developmental psychologist studies how behavior, personality and performance change with age
  - Sample questions: What do people do or know as adults that they do not know as children? Is this due to biological changes, increased experience, or both?

# What Psychologists Do

- ▶ Major categories of psychological research:  
Learning and motivation
  - A learning or motivation psychologist investigates how behavior is influenced by outcomes of past behaviors and current motivations
  - Sample question: Do predictable rewards produce better learning than less consistent rewards?

# What Psychologists Do

- ▶ Major categories of psychological research:  
Cognitive psychology
  - A cognitive psychologist studies the processes involved in thinking and acquiring knowledge
  - Sample question: What are optimal ways to learn?

# What Psychologists Do

- ▶ Major categories of psychological research:  
Biological psychology or neuroscience
  - A neuroscientist explains behavior in terms of biological factors, such as anatomy, electrical and chemical activities in the nervous system, and the effects of drugs, hormones, genetics and evolution.
  - Sample question: How does brain damage from drug abuse change an individual's behavior?

# What Psychologists Do

- ▶ Major categories of psychological research:  
Evolutionary psychology
  - An evolutionary psychologist explains behavior in terms of natural selection pressures promoting behaviors that lead to success in reproduction and survival
  - Sample question: What forces led to selection for human language abilities?

# What Psychologists Do

- ▶ Major categories of psychological research:  
Social psychology
  - A social psychologist studies how an individual influences and is influenced by other people
  - Sample questions: How do demands and expectations of authority figures influence our behavior? How strong is the human tendency to conform?

# What Psychologists Do

- ▶ Major categories of psychological research:  
Cross-Cultural psychology
  - A cross-cultural psychologist compares the behavior of people from different cultures
  - Sample questions: How does culture affect taste preferences? Which cultures place more emphasis on group interests and how does that affect individual behavior?



# Concept Check

- ▶ Which area of psychology research would be concerned with whether punishment is an effective means of eliminating undesirable behaviors?
  - *Learning and motivation*
- ▶ Which would ask if people will obey a leader who is demanding behavior that might be classified as immoral or wrong?
  - *Social*

## Concept Check

- ▶ Which psychologist would investigate improvement of retention and recall of information in college-level courses?
  - *Cognitive psychologist*

# Majoring in Psychology

- ▶ Should you major in psychology?
  - Psychology is a popular major
  - Many jobs suitable for those who hold B.A/B.S degrees are not listed as such including:
    - Personnel/human resources specialist
    - Halfway/transitional home staff
    - Community/social services outreach worker

# Majoring in Psychology

- ▶ Should you major in psychology?
  - It's applicable to a wide variety of careers as well as everyday life.  
It can help you to:
    - ✓ more effectively evaluate evidence presented in a variety of situations
    - ✓ improve learning and retention
    - ✓ be aware of the power of social influence and cultural context

# Majoring in Psychology

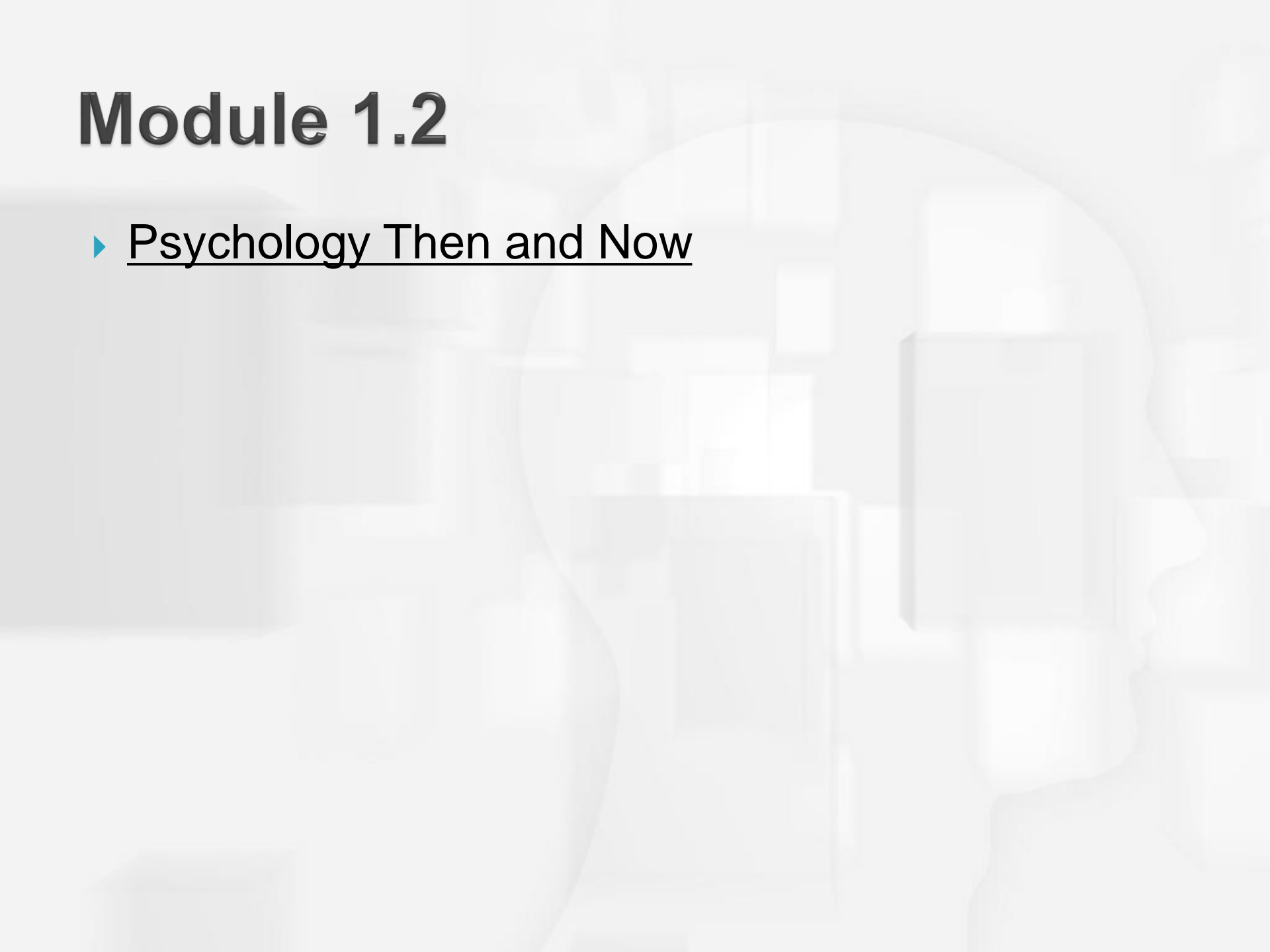
- ▶ Should you major in psychology?
  - If you want to become a psychologist...
    - ✓ You'll need a masters (M.A.) or doctorate (Ph.D./Psy.D.)
    - ✓ You may be in school up to eight more years
    - ✓ You should have an interest in working in health care or educational settings or in a private practice or consulting role

# Majoring in Psychology

- ▶ Should you major in psychology?
  - Why take this class or consider majoring in the field?
  - ✓ Psychology offers exciting possibilities for improving quality of life.

# Module 1.2

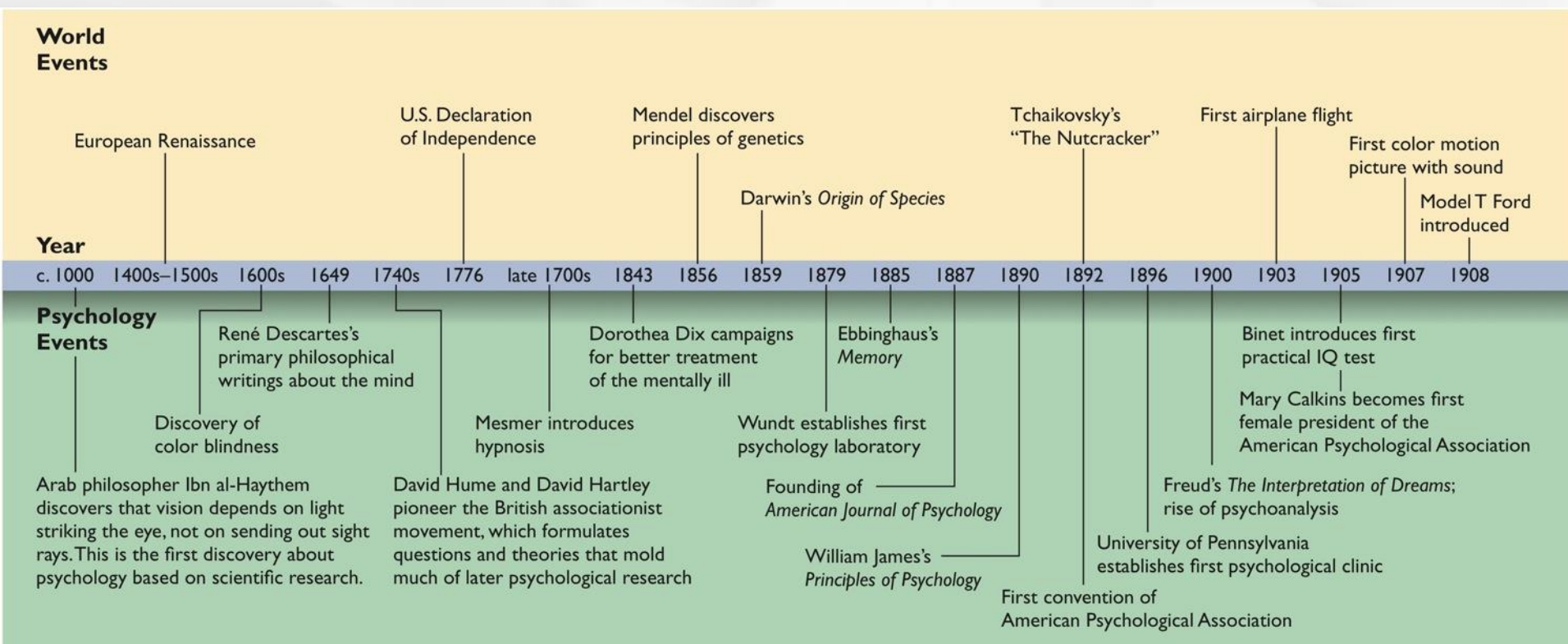
- ▶ Psychology Then and Now



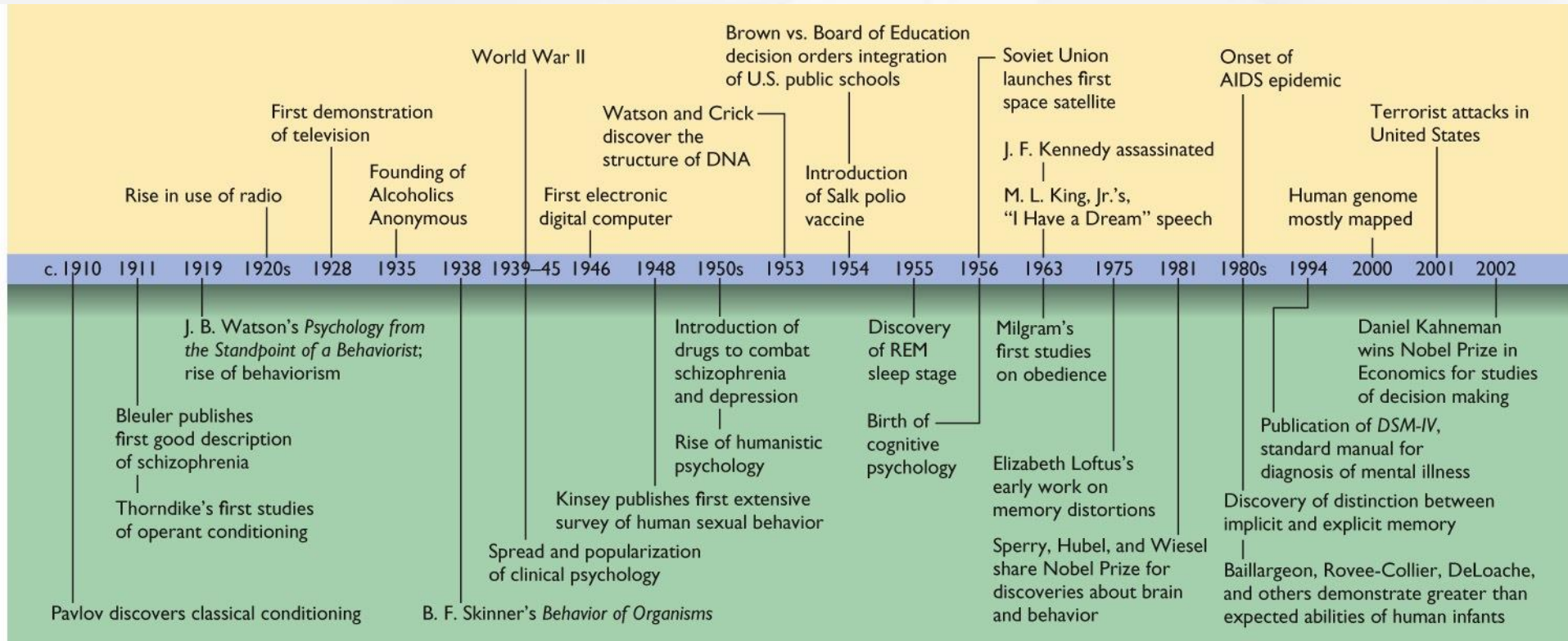
# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Throughout history across the globe people have contemplated human nature
  - Great writers are widely read because they provide compelling descriptions and make profound observations about the human experience





(Based partly on Dewsbury, 2000a.)



(Based partly on Dewsbury, 2000a.)

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - The physician William Wundt did research on the senses and established the first psychology laboratory in Leipzig, Germany, in 1879
  - Other psychology experiments had been done, but this was the first true psychology laboratory

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Wundt's fundamental question: What are the components of experience, or mind?
  - He presented subjects with a variety of stimuli.
  - He asked them to introspect (look within.)
  - He recorded changes in their reported experiences as stimuli changed

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Wundt and his students investigated a wide range of areas and wrote prolifically about their findings
  - He demonstrated that it was indeed possible to perform meaningful experiments in psychological science

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - William James wrote *The Principles of Psychology* (1890)
  - He was interested in how the mind produces behaviors, not its composition
  - He rejected the methods of structuralism
  - He called his approach functionalism

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Typical functionalist questions examine how individuals:
    - ✓ recall answers to questions
    - ✓ inhibit undesirable impulses
    - ✓ attend to multiple tasks (if they can.)

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Psychophysics was the term used by the scientists who carried out early research on sensory systems
  - They described and analyzed sensory function
  - For example that the perception of a stimulus' intensity is not directly proportional its actual physical intensity



# Psychology Then and Now

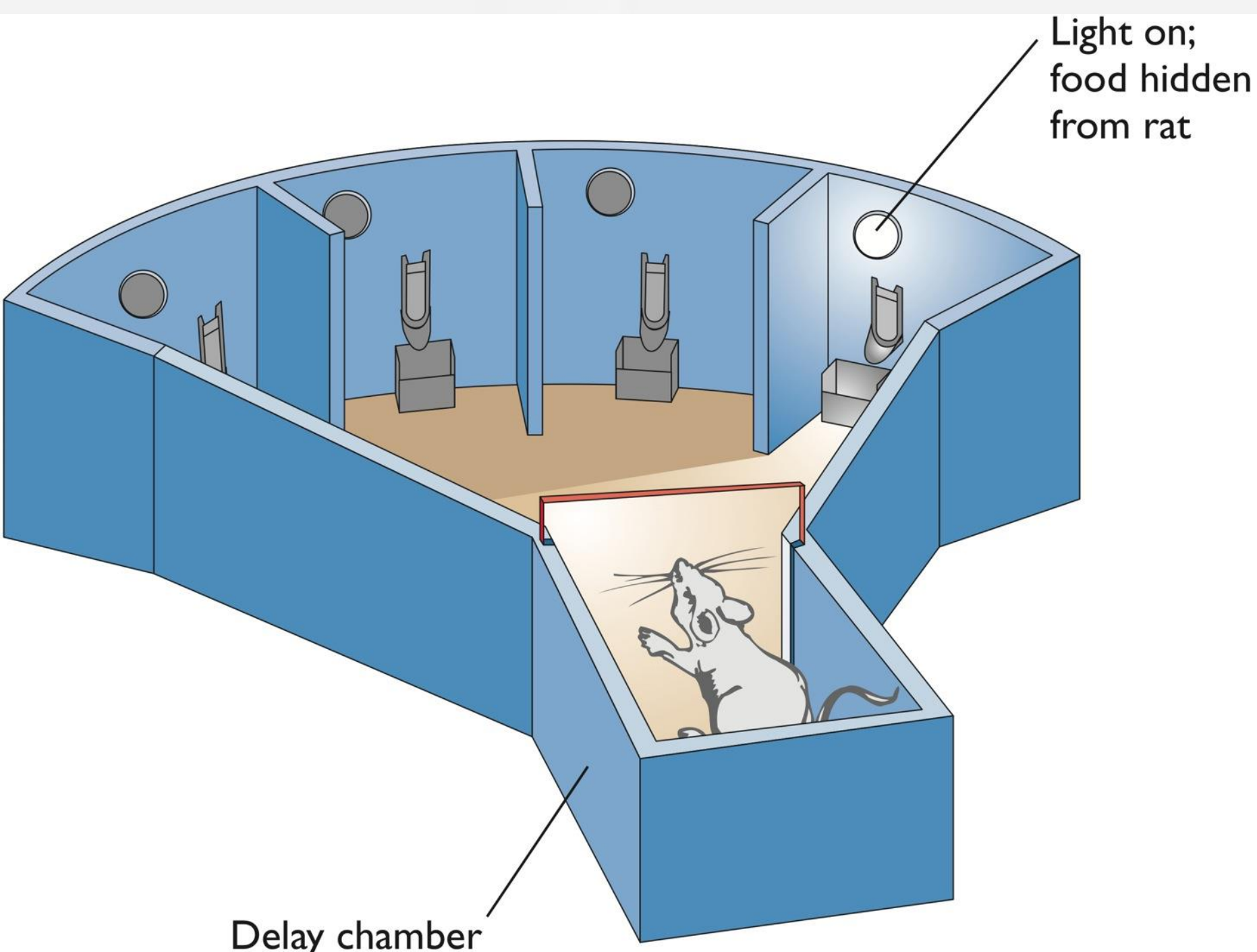
- ▶ The early era and the roots of psychology
  - Psychophysics provides mathematical descriptions of relationships between real physical and perceived properties of sensory stimuli
  - A sound half as loud (in decibels) as another may not be perceived as such by the listener

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Darwin's work had an enormous impact: The Origin of Species (1859); The Descent of Man (1871)
  - Scientists had to consider basic features held in common by animals, such as thinking and emotions
  - Comparative psychologists specialists who compare behavior across species, use this perspective

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Early comparative psychologists devised experiments to measure animal intelligence including:
    - ✓ The delayed-response problem
    - ✓ The detour problem
    - ✓ Pattern recognition

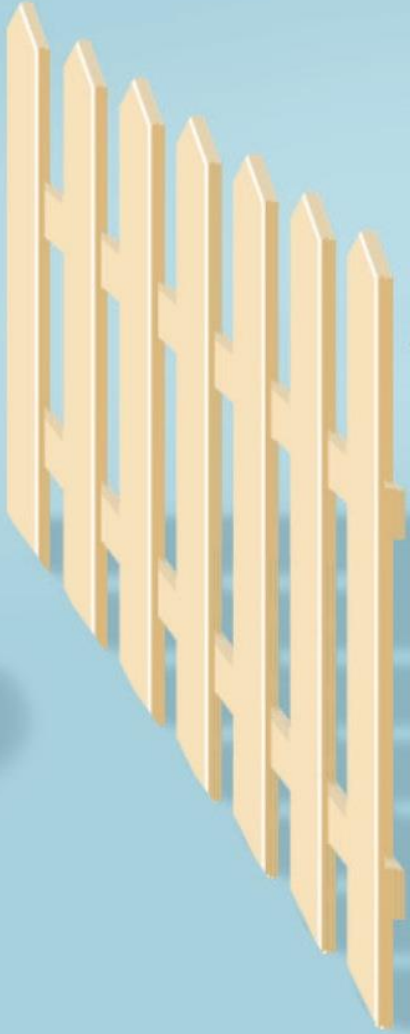


Delay chamber

Light on;  
food hidden  
from rat



Food





(Giebel, 1958).

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - The research of comparative psychologists shows that species may be gifted in certain tasks and highly deficient in others

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - The inconsistencies in performance between types of tasks within a single species suggested that questions about animal intelligence might be meaningless
  - This is similar to problems now encountered in the controversial area of measuring human intelligence



# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Francis Galton investigated how heredity influenced variations in cognitive abilities
  - He found that sons of famous and talented men were more likely to be accomplished and suggested this was the influence of heredity
  - He tried to develop an intelligence test but failed

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - At the request of the French government Alfred Binet devised the first useful intelligence test (1905) to identify children in public schools who had need of special services
  - After his death his test became the “template” for the development of many IQ and other tests (contrary to his wishes.)

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Some of the most interesting questions in this course involve whether it is truly possible to measure qualities (such as intelligence) or to fully understand what they are

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - While structuralism has been abandoned, behaviorism is a psychology subspecialty focused on measurable behaviors, not mental processes
  - Behaviorists study observable behaviors associated with learning

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - *“Psychology as the behaviorist views it is a purely objective experimental branch of natural science. Its theoretical goal is the prediction and control of behavior.”*

*John B. Watson, 1913*

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - The earliest researchers in the field of behaviorism and learning expected to find that it operated using simple, basic, and predictable laws, like Newton's physical laws of the universe

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - As the random and somewhat less predictable model quantum physics has replaced Newton's "clockwork", the laws of behaviorism have been tempered by complexities arising from internal processes (cognition, motivation)

# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Simple questions of early behaviorists have been replaced by complex questions related to inferred aspects of experience
  - Modern behaviorists do not seek to discover “simple universal principles of behavior.”
  - Principles of behaviorism remain useful to modern psychologists



# Psychology Then and Now

- ▶ The early era and the roots of psychology
  - Sigmund Freud's psychoanalytic theory proposed the existence of an “unconscious mind” rooted in our animal origins
  - Much of it has now been rejected as unscientific but psychology is still influenced by Freud's ideas about treatment of psychological distress

## Recent Trends in Psychology

- ▶ Modern clinical psychology
  - The trauma experienced by soldiers in World War II provided opportunities for the further development of psychoanalysis and innovation in psychotherapy practice

## Recent Trends in Psychology

- ▶ Modern clinical psychology.
  - Behaviorists used reinforcement and other learning principles in treating psychological distress
  - Other fields of psychology that contributed to recent innovations in therapy include humanistic and cognitive psychology

# Recent Trends in Psychology

- ▶ Academic and applied psychology
  - Research continues in many areas including consciousness studies
  - Applied fields of psychology are booming and include
    - ✓ Health psychology
    - ✓ Forensic psychology (dealing with issues of mental competence for trial, and accuracy of eyewitness testimony)

## Recent Trends in Psychology

- ▶ Women in psychology
  - Women's roles were limited at first
  - Mary Calkins did graduate-level study at Harvard
  - She never received the Harvard PhD that she earned
  - But she continued her work and eventually became a president of the American Psychological Association

# Recent Trends in Psychology

- ▶ **Cross-cultural psychology and human diversity**
  - Psychologists now take culture into account
  - It is generally recognized that mental illness is partly culturally and socially defined
  - Behaviors may be more or less adaptive in the context of culture of origin

# Recent Trends in Psychology

- ▶ **Cross-cultural psychology and human diversity**
  - Homosexuality once was considered a psychological disorder.
  - Despite continuing controversy it is no longer considered as such
  - Psychoanalytic theories don't work well for cultures where children are traditionally raised by extended family members

# Recent Trends in Psychology

- ▶ An evolving science:
  - We've changed as a species, and we've changed our world, creating new challenges to survival
  - Psychologists can't provide simple answers. We work to improve our understanding of ourselves, to find the best solutions, and to change ourselves when it's in our best interest