

${\bf COMSATS\ University Islamabad,\ Virtual Campus}$

HUM122Fundamentals of Psychology

Lecture 1Handouts

Introduction to Psychology

Myths of Psychology

- 1. Psychologists read faces; they mix their preconceived ideas with their training.
- 2. They are like magicians.
- 3. Like Psychiatric patients, Psychologists are crazy people too.
- 4. Going to visit Psychologists means you have something abnormal, or you are considered mad.

Facts about Psychology

Psychology emerged from biology and philosophy and is closely linked to other disciplines including sociology, medicine, linguistics, and anthropology.

- 1. Psychology is an organized body of knowledge.
- 2. It collects and analyzes knowledge.
- 3. Psychologists are trained to live a balanced life
- 4. Anyone can visit a psychologist starting from a counseling session to a major disorder.

What is Psychology- Definition

Psychology is the science of the mind and behavior. The word "psychology" comes from the Greek word psyche meaning "breath, spirit, soul", and the Greek word logia meaning the study of something. Psychology is both an applied and academic field that studies the human mind and behavior. Research in psychology seeks to understand and explain how we think, act, and feel. The emergence of psychology as a separate and independent field of study truly began when Wilhelm Wundt established the first experimental psychology lab in Leipzig, Germany in 1879.

Throughout the history of psychology, several different schools of thought have been formed to explain human thought and behavior. These schools of thought often rise to dominance for some time. While they are sometimes perceived as competing forces, each perspective has contributed to our understanding of psychology.

Current Definitions

Hilgard, Atkinson, & Atkinson (1975) have compiled the changing definitions of psychology starting from that of William James (1890) to that of Kenneth Clark and George Miller (1970). Bagga& Singh (1990) have also cited the following two definitions of Woodworth and Munn, respectively:

- "Psychology is the scientific study of the activities of the individual in relationto his environment".
- "Psychology today concerns itself with the scientific investigation of behavior, including from the stand-point of behavior, much of what earlier psychologists dealt with as experience".
- Some of the more recent definitions of Psychology, in chronological order, are
- as follows:
- Psychology is the science of human and animal behavior. It includes the application of this science to human problems. (Morgan et al., 1986)
- The scientific study of behavior and mental processes. (Feldman, 1996)
- The scientific study of behavior and mental processes and how they are affected by an organism's physical state, mental state and external environment (Tavris and Wade, 1997)
- Psychology is all about human behavior, about mental processes, and about the context in which behavior and mental processes occur. (Das, 1998)
- The science of behavior and mental processes. (Lahey, 1998)
- The science of behavior and cognitive processes. (Baron, 1999)
- Scientific study of behavior and mind. (Nairne, 2003)
- A science in which behavioral and other evidence is used to understand the internal processes leading people (and members of other species) to behave as they do. (Eysenck, 2004)
- The scientific study of behavior and mental processes. (Ciccarelli&Meyer,2006; Coon &Mitterer, 2007, 2008)

The science that studies behavior and mental processes. (Rathus, 2008)

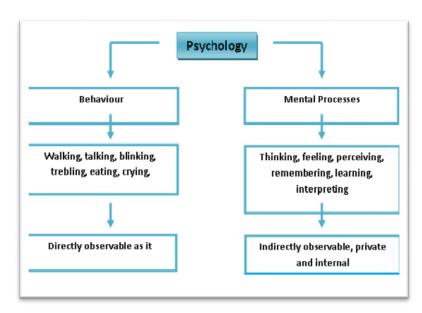
As is evident in the above definitions, study of behavior (human and animal) has been emphasized in all of them. In addition, most authors have also included 'cognitive/mental processes' in their definitions of psychology. But, what is behavior? We will now look at the nature and characteristics of behavior.

Psychology and Behavior

When many people think about psychology, they often associate it immediately withthe diagnosis and treatment of abnormal behavior. However, it is important to remember that psychology also studies normal behavior.

The mind is highly complex and enigmatic. Many wonder how psychologists can study such an intricate, seemingly abstract, and extremely sophisticated thing. Even if scientists look inside the brain, as in an autopsy or during a surgical operation, all they see is gray matter (the brain). Thoughts, cognition, emotions, memories, dreams, perceptions, etc. cannot be seen physically, like a skin rash or heart defect.

- 1. To describe human thought and behavior
- 2. To explain why these behaviors occur
- 3. To predict how, why, and when these behaviors will occur again in the future
- 4. To modify and improve behaviors to better the lives of individuals and society as a whole
- 5. Behavior is learned and can be unlearned
- 6. Social learning perspectives are used in practice (social skills, modeling, etc)
- 7. Behavior Modification is done according to the condition
- 8. Behavior is shaped by culture



Psychology as a Science

Psychology is Empirical. The idea that knowledge should be gained through experience, i.e. empirically, turned into a method of inquiry that used careful observation and experiments to gather facts and evidence. Psychology is a discipline that seeks to study the thoughts and actions of man (as well as the behavior of animals) scientifically. To understand exactly what this means a clear definition of science is required. Science is a marvelous development in the history of human thought, bringing about amazing benefits and wonders for the modern world.

It is a systematic approach to understanding people, their thoughts, emotions, and behavior. The application of this understanding helps solve human problems.

BRANCHES OF PSYCHOLOGY

It has two main branches:

- 1. Pure Psychology: It deals with the psychological research and data which helps to formulate the principles of activity
- 2. *Applied Psychology:* It applies the information given by Pure Psychology, to the problems of actual life.

1. Pure Psychology

Psychology is the scientific study of human and animal behavior with the object of understanding why living beings behave as they do. It involves psychological research and data that help to formulate the principles of activity

- 1. Experimental Psychology
- 2. Social Psychology
- 3. Abnormal Psychology
- 4. Developmental Psychology
- 5. Comparative Psychology
- 6. Physiological Psychology

2. Applied Psychology

The basic premise of applied psychology is the use of psychological principles and theories to overcome problems in other areas, such as mental health, business management, education, health, product design, ergonomics, and law.

- 1. Clinical Psychology
- 2. Industrial Psychology
- 3. Educational Psychology
- 4. Application of Psychology in Medicine
- 5. Application of Psychology in Law

GOALS OF PSYCHOLOGY

1. Describing and Explaining Behavior

Differentiating between normal, healthy, and unhealthy behaviors is the cornerstone of psychology, requiring psychologists to have a keen sense of observation. Psychologists are interested in explaining behavior rather than merely describing it. They seek to understand why people do the things they do and what factors contribute to development, personality, social behavior, and mental health problems. Throughout psychology's history, many different theories have emerged to help explain various aspects of human behavior. The second goal of psychology, explaining. The attempt to explain behavior based on

observation is rather difficult due to many factors. For instance, behavior varies among cultures and can change over time. Psychologists' attempts to explain behavior reflect the fundamental goal of all science--understanding our universe and our place in it. Several theorists, from Freud and Jung to Skinner and Rogers, have offered various theories to explain personality, development, and motivation. Explanations are limited, of course, because they often are culturally restricted; that is, one explanation might not explain similar behavior in another culture or society. Explanation is often determined through qualitative and quantitative observation, including experimentation.

2. Predicting and Influencing Behavior

Psychologists try to determine if a person is likely to make healthy decisions when confronted with certain situations. Most of the time, they will use experiments to make their predictions. Psychology also attempts to predict behavior. The purpose of prediction is to determine when an individual will make healthy or unhealthy choices or how an individual will perform within the environment and stimuli. Consider the advantages of predicting whether a student will be successful at a certain college, based on past behavior in a similar environment. Though prediction is not foolproof, it can permit institutions and individuals to make more informed decisions and choices about their futures.

The finalgoal of psychology is to influence behavior. This may involve changing unhealthy behavior as well as promoting existing healthy behavior. There are many methods used to influence behavior such as positive reinforcement or rewarding good behavior. Modifying behavior can be beneficial or harmful, but within ethical constraints, psychology seeks to encourage individuals and groups voluntarily to modify behavior for long-term health gain. Personality and development theories vary in their approachesto behavior changes. Some behaviorists believe in repetitive reinforcement, while positivists believe in honest cognitive discourse. Psychology can be used in education, social correction, and organizational structures to elicit preferred behaviors and attitudes.

DIFFERENT PERSPECTIVES IN PSYCHOLOGY

Following are the different perspective in psychology:

- a) Biological Psychology
- b) Behavioral/Clinical Psychology
- c) Cognitive Psychology
- d) Social-Cultural Psychology
- e) Personality Psychology
- f) Experimental Psychology
- g) Educational Psychology
- h) Industrial Psychology

- i) Criminal Psychology
- j) Computational Psychology

a) Biological psychology

Biology is defined as the study of life (from the Greek bios meaning 'life' and logos meaning 'study'). A biological perspective is relevant to the study of psychology in three ways:

- a. Comparative method: different species of animal can be studied and compared. This can help in the search to understand human behavior.
- b. Physiology: how the nervous system and hormones work, how the brain functions, and how changes in structure and/or function can affect behavior. For example, we could ask how prescribed drugs to treat depression affect behavior through their interaction with the nervous system.

Biological psychology, also referredto as physiological psychology or behavioral neuroscience, examines the physiological bases of behavior. Biological psychology is concerned primarily with the connection between psychological processes and the underlying physiological events—the mind-body phenomenon. Its focus is the function of the brain and the rest of the nervous system in activities (e.g., thinking, learning, feeling, sensing, and perceiving) that are recognized as characteristic of humans and other animals. Biological psychologycontinually investigates the physical basis for the reception of internal and external stimuli by the nervous system, particularly the visual and auditory.

Biological psychology explores the connections between biology and psychological events, including how information travels throughout our bodies (neural impulses, axons, dendrites, etc.), and how various neurotransmitters influence sleep, and dreaming, among others, just to name a few. It encompasses the study of how all body processes, including the electrical and chemical processes essential for nervous system communication.

b) Behavioral Psychology

Behavioral psychology is a branch of psychology that concentrates on observable behaviors. Conditioning, reinforcement, and punishment are key concepts used by behaviorists. Learn more about classical conditioning and operant conditioning as well as some of the major behaviorist thinkers.

Behavioral psychology maintains that

- a. Behavior is both conditioned and determined by its outcomes or consequences (rewards and punishments);
- b. Human behavior can be understood by investigating animal behavior;
- c. Only the observable and measurable aspects of a behavior are worth investigating;
- d. Repetition alone brings mastery which is the same as understanding;

- e. Knowledge is something given by an instructor and taken (acquired) by a learner;
- f. An instructor should focus on changing the learner's behavior and not his or her thinking patterns; and
- g. Mind (and thus consciousness) does not exist as far as scientific investigation is concerned.

Behavioral psychology, also known as behaviorism, is a theory of learning based on the idea that all behaviors are acquired through conditioning. Advocated by famous psychologists such as John B. Watson and B.F. Skinner, behavioral theories dominated psychology during the early half of the twentieth century. Today, behavioral techniques are still widely used in therapeutic settings to help clients learn new skills and behaviors.

1. Conditioning

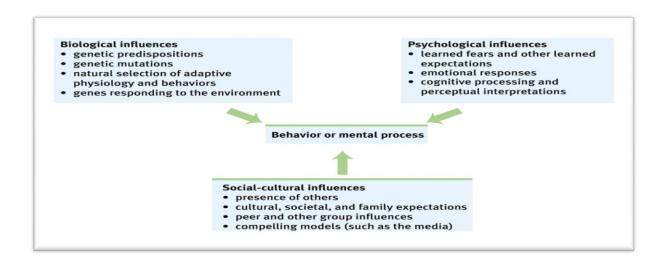
- a. Classical conditioning is a behavioral intervention technique in which two stimuli that are repetitively paired together elicit the same behavioral response separately.
- b. Operant conditioning is a technique that emphasizes the association between voluntary behavior and consequence.

2. Reinforcement

Reinforcement is a psychological term that describes to the way behaviors increase or decrease based on whether people associate it with a positive experience (a "reward") or a negative experience (a "punishment").

3. Punishment

Negative punishment is an important concept. In behavioral psychology, the goal of punishment is to decrease the behavior that precedes it. In the case of negative punishment, involves taking something good or desirable away to reduce the occurrence of a particular behavior.



c) Cognitive Psychology

Cognitive Psychology is the study of human thought processes and cognitions. Cognitive psychologists investigate topics such as attention, memory, perception, decision-making, problem-solving, and language acquisition.

This branch investigates internal mental processes, such as problem-solving, memory, learning, and language (how people think, perceive, communicate, remember, and learn). This branch of psychology is closely related to other disciplines, such as neuroscience, philosophy, and linguistics. Cognitive psychology focuses on the way humans process information, examining how we treat information that comes into the person (what behaviorists would call stimuli), and how this treatment leads to responses. In other words, cognitive psychologists are interested in the variables that mediate between stimulus/input and response/output. Cognitive psychologists study internal processes including perception, attention, language, memory, and thinking. At the center of cognitive psychology lies how people acquire, process, and store information. Many argue that cognitive psychology is the study of intelligence. Practical applications for cognitive research may includeimproving memory, enhancing the accuracy of decision-making, or settingand designing educational programs to enhance learning. Unlike behaviorism, which focuses solely on observable behaviors, cognitive psychology is concerned with internal mental states. Unlike psychoanalysis, which heavily relies on subjective perceptions, cognitive psychology uses scientific research methods to study mental.

d) Social-Cultural Psychology

Baron, Byrne &Suls (1989) define social psychology as "the scientific field that seeks to understand the nature and causes of individual behavior in social situations". Social psychology is about understanding individual behavior in a social context. Socio-cultural psychology focuses on the fact that our interactions with others in society affect not only our thought process, but also our perception, and how we make decisions.

Our socio-cultural thought process begins in childhood and steadily gains momentum as we grow older. This branch of psychology explains how we create our identity or self-image and shape our perception.

It uses scientific methods to understand and explain how feelings, behaviors, and thoughts of people are influenced by the actual, imagined, or implied presence of other people. A social psychologist will look at group behavior, social perception, non-verbal behavior, conformity, aggression, prejudice, and leadership. Social perception and social interaction are seen as key to understanding social behavior. Simply, social psychology studies the impact of social influences on human behavior.

e) Personality Psychology

Personality psychology is a branch of psychology that studies personality and its differences, examining the processes that contribute to individual uniqueness and define us as individuals.

Its areas of focus include:

- Construction of a coherent picture of the individual and his or her major psychological processes
- b. Investigation of individual differences
- c. Investigating human nature and human similarities

The study of personality has a broad and varied history in psychology, encompassing numerous theoretical traditions. The major theories include dispositional (trait) perspective, psychodynamic, humanistic, biological, behaviorist, and social learning perspective. However, many researchers and psychologists do not explicitly identify themselves with a certain perspective; instead, they take an eclectic approach.

f) Experimental Psychology

Experimental psychology is an area of psychology that employs scientific methods to investigate the mind and behavior. Experimental psychologists work in various settings including colleges, universities, research centers, government, and private businesses. Experimental psychologists work in a wide variety of settings including colleges, universities, research centers, government, and private businesses. Some of these professionals may focus on teaching experimental methods to students, while others research cognitive processes, animal behavior, neuroscience, personality, and many other subject areas.

The experimental method in psychology aims to explain the activities of animals (including humans) and the functional organization of mental processes by manipulating variables that may give rise to behavior; it is primarily concerned with discovering laws that describe manipulable relationships. The term generally connotes all areas of psychology that use the experimental method.

g) Educational Psychology

Educational psychology is the study of how humans learn in educational settings, the effectiveness of educational interventions, the psychology of teaching, and the social psychology of schools as organizations. It involves the learning process of early childhood and adolescence, including the social, emotional, and cognitive processes. Educational psychology focusses on understanding how students learn and develop, often focusing on subgroups such as gifted children and those subject to specific disabilities. Educational psychology can in part be understood through its relationship with other disciplines. It is informed primarily by psychology, bearing a relationship to that discipline analogous to the relationship between medicine and biology. Educational psychology in turn informs variousspecialties within

educational studies, including instructional design, educational technology, curriculum development, organizational learning, special education, and classroom management. Educational psychology both draws from and contributes to cognitive science and the learning sciences.

This branch of psychology involves not just the learning process of early childhood and adolescence but includes the social, emotional, and cognitive processes that are involved in learning throughout the entire lifespan.

h) Industrial Psychology

Industrial-organizational psychology is an applied area of psychology that utilizes psychological theories and principles to solve problems related to the workplace and organizations' challenges. It is concerned with the effective management of an industrial labor force, particularly with problems encountered by workers in a mechanized environment.

It is also known as industrial-organizational psychology, I-O psychology, work psychology, organizational psychology, work and organizational psychology, occupational psychology, personnel psychology, or talent assessment) - studies the performance of people at work and in training, develops an understanding of how organizations function and how people and groups behave at work. The occupational psychologist aims to increase effectiveness, efficiency, and satisfaction at work.

i) Criminal Psychology

Criminal psychology is the study of the wills, thoughts, intentions, and reactions of criminals, encompassing all aspects of criminal behavior. This psychology is particularly uneasy with tests of social structure that are based on assessments of age, race, ethnicity, and gender at the personal level.

j) Computational Psychology

It is concerned with constructing computer models of human cognitive processes and is based on an analogy between the human mind and computer programs. The brain and computer are viewed as general-purpose symbol-manipulation systems, capable of supporting software processes.

k) Development of psychology

- 1. Development describes the growth of humans throughout the lifespan, from conception to death.
- 2. The scientific study of human development seeks to understand and explain how and why people change throughout life.
- 3. This includes all aspects of human growth, including physical, emotional, intellectual, social, perceptual, and personality development.

Summary of Some Career Paths in Psychology

Psychology field	Description	Career opportunities
Biopsychology and neuroscience	This field examines the physiological bases of behavior in animals and humans by studying the functioning of different brain areas and the effects of hormones and neurotransmitters on behavior.	Most bio psychologists work in research settings—for instance, at universities, for the federal government, and in private research labs.
Clinical and counseling psychology	These are the largest fields of psychology. The focus is on the assessment, diagnosis, causes, and treatment of mental disorders.	Clinical and counseling psychologists provide therapy to patients with the goal of improving their life experiences. They work in hospitals, schools, social agencies, and private practice. Because the demand for this career is high, entry to academic programs is highly competitive.
Cognitive psychology	This field uses sophisticated research methods, including reaction time and brain imaging, to study memory, language, and thinking of humans.	Cognitive psychologists work primarily in research settings, although some (such as those who specialize in human-computer interactions) consult for businesses.
Developmental psychology	These psychologists conduct research on the cognitive, emotional, and social changes that occur across the lifespan.	Many work in research settings, although others work in schools and community agencies to help improve and evaluate the effectiveness of intervention programs such as Head Start.
Forensic psychology	Forensic psychologists apply psychological principles to understand the behavior of judges, lawyers, courtroom juries, and others in the criminal justice system.	Forensic psychologists work in the criminal justice system. They may testify in court and may provide information about the reliability of eyewitness testimony and jury selection.

Psychology field	Description	Career opportunities
Health psychology	Health psychologists are concerned with understanding how biology, behavior, and the social situation influence health and illness.	Health psychologists work with medical professionals in clinical settings to promote better health, conduct research, and teach at universities.
Industrial- organizational and environmental psychology	Industrial-organizational psychology applies psychology to the workplace with the goal of improving the performance and well-being of employees.	There are a wide variety of career opportunities in these fields, generally working in businesses. These psychologists help select employees, evaluate employee performance, and examine the effects of different working conditions on behavior. They may also work to design equipment and environments that improve employee performance and reduce accidents.
Personality psychology	These psychologists study people and the differences among them. The goal is to develop theories that explain the psychological processes of individuals, and to focus on individual differences.	Most work in academic settings, but the skills of personality psychologists are also in demand in business—for instance, in advertising and marketing. PhD programs in personality psychology are often connected with programs in social psychology.
School and educational psychology	This field studies how people learn in school, the effectiveness of school programs, and the psychology of teaching.	School psychologists work in elementary and secondary schools or school district offices with students, teachers, parents, and administrators. They may assess children's psychological and learning problems and develop programs to minimize the impact of these problems.
Social and cross- cultural psychology	This field examines people's interactions with other people. Topics of study include conformity, group behavior, leadership, attitudes, and personal perception.	Many social psychologists work in marketing, advertising, organizational, systems design, and other applied psychology fields.

Psychology field	Description	Career opportunities
Sports psychology	This field studies the psychological aspects of sports behavior. The goal is to understand the psychological factors that influence performance in sports, including the role of exercise and team interactions.	Sports psychologists work in gyms, schools, professional sports teams, and other areas where sports are practiced.

The importance of psychology

- 1. Self-Knowledge
- 2. Learning can be viewed as one purpose of life, and self-knowledge can be viewed as an important element of learning.
- 3. Learning About Others
- 4. Learning about oneself, in the field of psychology allows us to learn about others.
- 5. Solving Important Problems
- 6. Theories and findings in psychology may help us to solve important problems.

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