INTRODUCTION TO
PSYCHOLOGY

mendura
academic innovators

1.1: WORKING DEFINITION

Psychology is the scientific study of behaviour and cognitive processes.

The term psychology comes from two Greek words, *psyche*, meaning the soul, and *logos*, referring to the study of a subject. These two Greek roots were first put together to define a topic of study in the 16th century, when psyche was used to refer to the soul, spirit, or mind, as distinguished from the body (Boring, 1966). Not until the early 18th century did the term psychology gain more than rare usage among scholars. By that time, it had acquired its literal meaning, **"the study of the mind".** Psychology's intellectual parents were the disciplines of philosophy and physiology.

Because the mind can't be studied directly, Psychology is now defined as the scientific study of behavior and cognitive processes.

By the term behavior psychologists mean any observable action or reaction by a living organism— everything from overt actions (anything we say or do) through subtle changes in the electrical activity occurring deep within our brains. If it can be observed and measured, then it fits within the boundaries of "behavior." Similarly, by the term cognitive processes psychologists mean every aspect of our mental life—our thoughts, our memories, mental images, how we reason, how we make decisions and judgments, and so on.

1.2: GOALS OF PSYCHOLOGY

Every science has the common goal of learning how things work. Psychology's ultimate goal is to benefit humanity (O'Neill, 2005). The goals specifically aimed at uncovering the mysteries of human and animal behavior are **description, explanation, prediction, and control.**

1.2.1: Description

The process of naming and classifying in scientific research.

Answering psychological questions often begins with a careful description of behavior. Description, or naming and classifying, is typically based on making a detailed record of scientific observations. But a description doesn't explain anything. Useful knowledge begins with accurate description, but descriptions fail to answer the important "why" questions. For example, why do more women attempt suicide, and why do more men complete it? Why are

people more aggressive when they are uncomfortable? Why are bystanders often unwilling to help in an emergency? etc.

1.2.2: Understanding

In Psychology, understanding is achieved when the causes of a behavior can be stated.

The second goal of Psychology ie understanding comes after explaining an event, Understanding usually means we can state the causes of a behavior. For example, research on "bystander apathy" reveals that people often fail to help when other possible helpers are nearby. Why? Because a "diffusion of responsibility" occurs. Basically, no one feels personally obligated to pitch in. As a result, the more potential helpers there are, the less likely it is that anyone will help (Darley, 2000; Darley & Latané, 1968).

1.2.3: Prediction

An ability to accurately forecast behavior.

Psychology's third goal, prediction, is the ability to forecast behavior accurately. In the explanation of bystander apathy makes a prediction about the chances of getting help. Having many potential helpers nearby is no guarantee that anyone will stop to help.

1.2.4: Control

Altering conditions that influence behavior.

"Control" may seem like a threat to personal freedom. However, to a psychologist, control simply refers to altering conditions that affect behavior. If a clinical psychologist helps a person overcome a terrible fear of spiders, control is involved. Control is also involved in designing automobiles to keep drivers from making fatal errors. Clearly, psychological control must be used wisely and humanely.

In summary, Psychology's goals are a natural outgrowth of our desire to understand behavior. Basically, they boil down to asking the following questions:

- What is the nature of this behavior? (**description**)
- Why does it occur? (**understanding and explanation**)
- Can we forecast when it will occur? (**prediction**)
- What conditions affect it? (**control**)

1.3: BRIEF HISTORY OF MODERN SCIENTIFIC PSYCHOLOGY

It can trace Psychology's roots back to the ancient Greeks, who considered the mind to be a suitable topic for scholarly contemplation. Later philosophers argued for hundreds of years about some of the questions psychologists grapple with today. For example, the 17th-century British philosopher John Locke believed that children were born into the world with minds like "blank slates" (tabula rasa in Latin) and that their experiences determined what kind of adults they would become. His views contrasted with those of Plato and the 17th-century French philosopher René Descartes, who argued that some knowledge was inborn in humans.

However, the formal beginning of Psychology as a scientific discipline is generally considered to be in the late 19th century, when, in Leipzig, Germany, Wilhelm Wundt established the first experimental laboratory devoted to psychological phenomena. At about the same time, William James was setting up his laboratory in Cambridge, Massachusetts.

1.3.1: Structuralism

The school of thought concerned with analyzing sensations and personal experience into basic elements. In other words, it is the study about the structure and basic elements of the mind.

Over the years, Wundt studied vision, hearing, taste, touch, memory, time perception, and many other topics. By insisting on systematic observation and measurement, he asked some interesting questions and got Psychology off to a good start (Schultz & Schultz, 2008).

Wundt's ideas were carried to the United States by Edward Titchener. Titchener called Wundt's ideas structuralism and tried to analyze the structure of mental life into basic "elements" or "building blocks." The structuralists tried, mostly by using introspection (**Process of looking within oneself; to examine one's own thoughts, feelings, or sensations.).** For instance, an observer might heft an apple and decide that she had experienced the elements "hue" (color), "roundness," and "weight." Another example of a question that might have interested a structuralist is, what basic tastes mix together to create complex flavors as different as broccoli, lime, bacon, and strawberry cheesecake?

Over time, psychologists challenged Wundt's approach. They became increasingly dissatisfied with the assumption that introspection could reveal the structure of the mind. Introspection was not a truly scientific technique, because there were few ways an outside observer could confirm the accuracy of others' introspections. Moreover, people had difficulty describing some kinds of inner experiences, such as emotional responses. Those drawbacks led

to the development of new approaches, which largely replaced structuralism. Despite such limitations, "looking inward" is still used as one source of insight in studies of hypnosis, meditation, problem solving, moods, and many other topics.

1.3.2: Functionalism

The school of Psychology concerned with how behavior and mental abilities help people adapt to their environments.

American scholar William James broadened Psychology to include animal behavior, religious experience, abnormal behavior, and other interesting topics. James's brilliant first book, Principles of Psychology (1890), helped establish the field as a separate discipline (Hergenhahn, 2005).

The term functionalism comes from James's interest in how the mind functions to help us adapt to the environment. James regarded consciousness as an ever-changing stream or flow of images and sensations — not a set of lifeless building blocks, as the structuralists claimed. The functionalists admired Charles Darwin, who deduced that creatures evolve in ways that favor survival. According to Darwin's principle of natural selection, physical features that help animals adapt to their environments are retained in evolution. Similarly, the functionalists wanted to find out how the mind, perception, habits, and emotions help us adapt and survive.

Functionalism brought the study of animals into Psychology. It also promoted educational Psychology (the study of learning, teaching, classroom dynamics, and related topics). Learning makes us more adaptable, so the functionalists tried to find ways to improve education. For similar reasons, functionalism gave rise to industrial Psychology, the study of people at work.

1.3.3: Behaviourism

The school of Psychology that emphasizes the study of overt, observable behavior.

Functionalism and structuralism were soon challenged by behaviorism, the study of observable behavior. Behaviorist John B. Watson objected strongly to the study of the "mind" or "conscious experience." He believed that introspection is unscientific because there is no way to settle disagreements between observers. Watson realized that he could study the behavior of animals even though he couldn't ask them questions or know what they were thinking (Watson, 1913/1994). He simply observed the relationship between stimuli (events in the environment) and an animal's responses (any muscular action, glandular activity, or other

identifiable behavior). These observations were objective because they did not involve introspecting on subjective experience.

Watson soon adopted Russian physiologist Ivan Pavlov's concept of conditioning to explain most behavior. (**A conditioned response is a learned reaction to a particular stimulus.**) Watson claimed, *"Give me a dozen healthy infants, well-formed, and my own special world to bring them up in and I'll guarantee to take any one at random and train him to become any type of specialist I might select — doctor, lawyer, artist, merchant chief, and yes, beggar man and thief "* (Watson, 1913/1994).

1.3.4: Gestalt Psychology

A school of Psychology emphasizing the study of thinking, learning, and perception in whole units, not by analysis into parts.

Another important reaction to structuralism was the development of gestalt Psychology in the early 1900s. Gestalt Psychology emphasizes how perception is organized. Instead of considering the individual parts that make up thinking, gestalt psychologists took the opposite tack, studying how people consider individual elements together as units or wholes. German psychologist Max Wertheimer was the first to advance the Gestalt viewpoint. It is inaccurate, he said, to analyze psychological events into pieces, or "elements," as the structuralists did. Accordingly, Gestalt psychologists studied thinking, learning, and perception as whole units, not by analyzing experiences into parts. Their slogan was, "The whole is greater than the sum of its parts". In fact the German word Gestalt means "form, pattern, or whole." Many of our experiences cannot be broken into smaller units, as the Structuralists proposed. For this reason, studies of perception and personality have been especially influenced by the Gestalt viewpoint. Gestalt Psychology also inspired a type of psychotherapy.

1.3.5: Psychoanalysis

A Freudian approach to psychotherapy emphasizing the exploration of unconscious conflicts.

As American Psychology grew more scientific, an Austrian doctor named Sigmund Freud was developing radically different ideas which opened new horizons in art, literature, and history, as well as Psychology (Jacobs, 2003). Freud believed that mental life is like an iceberg: Only a small part is exposed to view. He called the area of the mind that lies outside of personal awareness the unconscious. According to Freud, our behavior is deeply influenced by unconscious thoughts, impulses, and desires — especially those concerning sex and

aggression. Freud theorized that many unconscious thoughts are repressed (held out of awareness) because they are threatening. But sometimes, he said, they are revealed by dreams, emotions, or slips of the tongue. ("Freudian slips" are often humorous, as when a student who is late for class says, "I'm sorry I couldn't get here any later.")

Freud believed that all thoughts, emotions, and actions are determined. In other words, nothing is an accident: If we probe deeply enough, we will find the causes of every thought or action. Freud was also among the first to appreciate that childhood affects adult personality ("The child is father to the man"). Most of all, perhaps, Freud is known for creating psychoanalysis, the first fully developed psychotherapy, or "talking cure." Freudian psychotherapy explores unconscious conflicts and emotional problems.

1.3.6: Humanistic Approach

An approach to Psychology that focuses on human experience, problems, potentials, and ideals.

Carl Rogers, Abraham Maslow, and other humanists rejected the Freudian idea that we are ruled by unconscious forces. They were also uncomfortable with the behaviorist emphasis on conditioning. Both views have a strong undercurrent of determinism (the idea that behavior is determined by forces beyond our control). In contrast, the humanists stress free will, our ability to make voluntary choices. Of course, past experiences do affect us. Nevertheless, humanists believe that people can freely choose to live more creative, meaningful, and satisfying lives.

Humanists are interested in psychological needs for love, self-esteem, belonging, self-expression, creativity, and spirituality. Such needs, they believe, are as important as our biological urges for food and water. For example, newborn infants deprived of human love may die just as surely as they would if deprived of food.

Maslow's concept of self-actualization is a key feature of humanism. **Self-actualization refers to developing one's potential fully and becoming the best person possible**. According to humanists, everyone has this potential. Humanists seek ways to help it emerge.

1.3.7: Cognitive Approach

An approach that combines behavioral principles with cognition (perception, thinking, anticipation) to explain behavior.

Efforts to understand behavior lead some psychologists straight into the mind. Evolving in part from structuralism and in part as a reaction to behaviorism, which focused so heavily on observable behavior and the environment, the cognitive perspective focuses on how people think, understand, and know about the world. The emphasis is on learning how people comprehend and represent the outside world within themselves and how our ways of thinking about the world influence our behavior.

Psychologists who rely on the cognitive perspective ask questions on subjects ranging from how people make decisions to whether a person can watch television and study at the same time. The common elements that link cognitive approaches are an emphasis on how people understand and think about the world and an interest in describing the patterns and irregularities in the operation of our minds.

1.4: FAMOUS CONTRIBUTORS IN PSYCHOLOGY

1.4.1: Wilhelm Wundt (1832–1920)

Wundt is credited with making psychology an independent science, separate from philosophy. Wundt's original training was in medicine, but he became deeply interested in psychology.

In 1879 Wundt succeeded in establishing the first formal laboratory for research in psychology at the University of Leipzig. In deference to this landmark event, historians have christened 1879 as psychology's "date of birth." Soon afterward, in 1881, Wundt established the first journal devoted to publishing research on psychology. All in all, Wundt's campaign was so successful that today he is widely characterized as the **founder of psychology.** According to Wundt, psychology's primary focus was consciousness—the awareness of immediate experience. Thus, psychology became the scientific study of conscious experience. This orientation kept psychology focused on the mind and mental processes. In his laboratory, Wundt investigated how sensations, images, and feelings combine to make up personal experience.

1.4.2: Stanley Hall (1846–1924)

G. Stanley Hall (1846–1924), who studied briefly with Wundt, was a particularly important contributor to the rapid growth of psychology in America. Toward the end of the 19th century, Hall reeled off a series of "firsts" for American psychology. To begin with, he established America's first research laboratory in psychology at Johns Hopkins University in 1883. Four

years later he launched America's first psychology journal. Furthermore, in 1892 Hall was the driving force behind the establishment of the American Psychological Association (APA) and was elected its first president.

1.4.3: William James (1842–1910)

William James was the son of philosopher Henry James, Sr., and the brother of novelist Henry James. During his long academic career, James taught anatomy, physiology, psychology, and philosophy at Harvard University. James believed strongly that ideas should be judged in terms of their practical consequences for human conduct.

1.4.4: John B. Watson (1878–1958)

Watson's intense interest in observable behavior began with his doctoral studies in biology and neurology. Watson became a psychology professor at Johns Hopkins University in 1908 and advanced his theory of behaviorism. He remained at Johns Hopkins until 1920.

1.4.5: Max Wertheimer (1880–1941)

Wertheimer first proposed the Gestalt viewpoint to help explain perceptual illusions. He later promoted Gestalt psychology as a way to understand not only perception, problem solving, thinking, and social behavior, but also art, logic, philosophy, and politics.

1.4.6: Sigmund Freud (1856–1939)

For more than 50 years, Freud probed the unconscious mind. In doing so, he altered modern views of human nature. His early experimentation with a "talking cure" for hysteria is regarded as the beginning of psychoanalysis. Through psychoanalysis, Freud added psychological treatment methods to psychiatry.

1.4.7: Abraham Maslow (1908–1970)

As a founder of humanistic psychology, Maslow was interested in studying people of exceptional mental health. Such self-actualized people, he believed, make full use of their talents and abilities. Maslow offered his positive view of human potential as an alternative to the schools of behaviorism and psychoanalysis.

1.4.8: Mary Whiton Calkins (1863–1930)

Mary Calkins, who studied under William James, founded one of the first dozen psychology laboratories in America at Wellesley College in 1891, invented a widely used

technique for studying memory, and became the first woman to serve as president of the American Psycho logical Association

1.4.9: Margaret Floy Washburn (1871–1939)

Margaret Washburn was the first woman to receive a Ph.D. in psychology. She wrote an influential book, The Animal Mind (1908), which served as an impetus to the subsequent emergence of behaviorism and was standard reading for several generations of psychologists. In 1921 she became the second woman to serve as president of the American Psychological Association. Washburn studied under James McKeen Cattell at Columbia University.

1.4.10: Leta Stetter Hollingworth (1886–1939)

Leta Hollingworth did pioneering work on adolescent development, mental retardation, and gifted children. Indeed, she was the first person to use the term gifted to refer to youngsters who scored exceptionally high on intelligence tests. Hollingworth (1914, 1916) also played a major role in debunking popular theories of her era that purported to explain why women were "inferior" to men. For instance, she conducted a study refuting the myth that phases of the menstrual cycle are reliably associated with performance decrements in women.

1.5: TIMELINE FORMAT OF DEVELOPMENT OF PSYCHOLOGY

1690 - **John Locke** introduced idea of *tabula rasa*

1879 - **Wilhelm Wundt** established first research laboratory in Psychology at *University of Leipzig, Germany*

1881 - **Wilhelm Wundt** established first journal devoted to research in Psychology.

1883 - **Stanley Hall** established first Psychology research laboratory in America at *John Hopkins University*

1890 - **William James** published his book *"The Principles of Psychology"*

1892 - **Stanley Hall** founded American Psychological Association (APA)

1900 - **Sigmund Freud** published *"Interpretation of Dreams"*

1904 - **Ivan Pavlov** won Nobel prize for work on digestion that lead to fundamental principles of learning.

1905 - **Alfred Binet** developed first Intelligence test in France.

1908 - **Margaret Washburn** published her book *"The Animal Mind"*

1912 - **Max Wertheimer** and others introduced **Gestalt** view point

1913 - **John B. Watson** wrote *Classic Behaviourism Manifesto*, stating that Psychology should consider only observable behavior

1914 - **Leta Hollingworth** published pioneering work on the psychology of Women

1916 - **Lewis Terman** published the *Standford – Binet Intelligence Scale*

1942 - **Carl Rogers** published *"Counselling and Psychotherapy"*

1943 - **Abraham Maslow** published "*A theory of human motivation"*

1950 - **Erik Erikson** wrote *Childhood and Society* in which he extended Freud's theory of development across the life span.

1951 - **Carl Rogers** published **Client Centered Therapy**

1953 - **B. F. Skinner** published his book "*Science and Human Behaviour"*

1957 - **Leon Festinger** published *"A Theory of Cognitive Science"*

1971 - **B. F. Skinner** published his book **"Beyond Freedom and Dignity"**

1981 - **Roger Sperry** won Nobel prize for split brain studies.

1990 - Evolutionary psychology emerged as a major new theoretical perspective.

- **Martin Seligman** launched the *Positive Psychology* movement.

1.6: MAJOR BRANCHES OF PSYCHOLOGY

As the study of Psychology has grown, it has given rise to a number of branches. The branches of Psychology can be likened to an extended family. Although they may not interact on a day-to-day basis, are related to one another, because they share a common goal:

understanding behavior. One way to identify the key branches is to look at some of the basic questions about behavior that they address.

The major branches of Psychology are mentioned below.

- **Behavioral genetics**: Behavioral genetics studies the inheritance of traits related to behavior.

- **Behavioral neuroscience:** Behavioral neuroscience examines the biological basis of behavior.

- **Clinical Psychology:** Clinical Psychology deals with the study, diagnosis, and treatment of psychological disorders.

- **Clinical neuroPsychology:** Clinical neuroPsychology unites the areas of bioPsychology and clinical Psychology, focusing on the relationship between biological factors and psychological disorders.

- **Cognitive Psychology:** Cognitive Psychology focuses on the study of higher mental processes.

- **Counseling Psychology:** Counseling Psychology focuses primarily on educational, social, and career adjustment problems.

- **Developmental Psychology:** Developmental Psychology examines how people grow and change from the moment of conception through death.

- **Educational Psychology:** Educational Psychology is concerned with teaching and learning processes, such as the relationship between motivation and school performance.

- **Evolutionary Psychology:** Evolutionary Psychology considers how behavior is influenced by our genetic inheritance from our ancestors.

- **Experimental Psychology:** Experimental Psychology studies the processes of sensing, perceiving, learning, and thinking about the world.

- **Forensic Psychology:** Forensic Psychology focuses on legal issues, such as determining the accuracy of witness memories.

- **Health Psychology:** Health Psychology explores the relationship between psychological factors and physical ailments or disease.

- **Industrial/ organizational Psychology:** Industrial/organizational Psychology is concerned with the Psychology of the workplace.

- **Personality Psychology:** Personality Psychology focuses on the consistency in people's behavior over time and the traits that differentiate one person from another.
- **Social Psychology:** Social Psychology is the study of how people's thoughts, feelings, and actions are affected by others.
- **Sport Psychology:** Sport Psychology applies Psychology to athletic activity and exercise.

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