

# Learning Psychology

## What is psychology?

The word psychology is made up of two Greek words '*psyche*' and '*ology*'. “Psyche” means 'breath' or 'inner spirit (life force)' or 'soul'; “ology” means the “study-of”. It is, then, the study of inner spirit.

In 1890, William James defined *psychology* as "the science of mental life". This definition became widespread for decades. However, this meaning was contested, notably by the behaviorists such as John B. Watson, who defined psychology as the acquisition of information useful to the control of behavior.

Originally, psychology focused on the *mind* only including thoughts, feelings, perceptions, and sensations — all internal. The **behavioral** revolution took the lead in the 1920s by such psychologists: Pavlov, Watson, Skinner, and others. They argued that psychology should also be **the study of behavior**.

The current definition of psychology is the study of the mind (internal cognitive and affective processes) and behavior (externally controlled). So, now psychology is well defined as **the study of mind and behavior**. It may be the study of human behavior in relation to the mind. In other words, how behaviours are affected by our mind is the concern of psychology.

It is an academic discipline and a social science. Psychologists explore behavior and mental processes, including perception, cognition, attention, emotion (affect), intelligence, motivation, brain functioning, and personality. This extends to interaction between people, such as interpersonal relationships.

## Unit 1: Learning Psychology

### 1.1. Meaning, definition and characteristics of learning

Learning is one of the most fundamental concepts in Psychology. It is defined as “any relatively permanent or lasting change in behaviour that occurs as a result of practice and experience”.

The **Learning** is the permanent change in the behavior brought about as consequences of experience. Simply, learning is the acquisition of new behaviors. It is agreed that learning involves changes in the behavior that we practice in our daily lives and which becomes a permanent part of our existing set of behaviors.

Several experts are still skeptical about the process of how the new behavior is acquired and how any individual can influence the other person's behavior through teaching. This has resulted in the development of several theories of learning. The theory is the set of factors or variables that explain the reason for the existence of theory, i.e. for what objective the theory is formulated. Many theories of learning are old and well established while many other theories are in its evolutionary stage. The Theories of human learning can be grouped into three categories: behaviorism, cognitivism, and constructivism.

Scholars have defined it variously. Let's consider some of them:

## **Definitions of Learning**

The term has been defined by well-known scholars. The definitions are as follows:

1. According to Gardner Murphy “Learning is the modification of behavior to meet environmental requirements”.
2. Kingsley and Garry defines it “The process by which behavior is organized or changed through practice or training.”
3. According to Gates “It is the modification of behavior through experience and training.”
4. Skinner argues that “It is an acquisition and retention.”

## **Characteristics of Learning**

Following are the characteristics of learning:

1. It is the change with or acquired or adjustment of behavior.
2. It is doing and practice.
3. It is continuous process till death.
4. It is goal directed i.e. to fulfill some basic needs.
5. It is continuous reconstruction i.e. replacing the old with the new experiences.
6. Its outcome may or may not be positive.
7. It is the products of activity.
8. It helps in proper growth and development.
9. It is universal irrespective of color, creed, language etc. (यो विश्वव्यापी हुन्छ , कुनै धर्म रङ्ग र भाषाले असर पार्दैन)

## **Domains of Learning**

The followings are the three domains of learning.

### **1. Cognitive Domain**

In this domain an individual thinking, mental, intellectual and intelligence capacities are modified and developed through educational process. There are six sub categories i.e. knowledge, comprehension, application, analysis, synthesis and evaluation

### **2. Affective Domain**

In this domain an individual feelings, emotional aspects are modified and developed like anger, hate, love, prejudice, phobias etc. Affective domains have five sub categories which are receiving phenomena, respond to phenomena, valuing, organization, characterization

### 3. Psycho-motor domain

In this conative domain an individual motor abilities (how to play a particular game or run a machine etc.) are modified and developed through training process.

#### 1.2. Philosophical foundations of Learning Theories

The roots of **learning** theory are in an area of **philosophy** called “epistemology”, a field concerned with how we acquire knowledge. Two philosophical traditions emerged from the writings of the ancient Greek philosophers, Plato and Aristotle. Plato introduced the cognitive or nativist or rationalist tradition but Aristotle started behavioral or empiricist traditions in learning theory. Then, at the philosophical level, empiricism and rationalism are two schools of thoughts that are characterized by different views.

##### Empiricism (and behaviorism)

**Empiricism** says that all knowledge comes from sense **experience**. Beginning with Aristotle, empiricist philosophers have proposed theories to explain how experience gets translated into knowledge. The basic process proposed was **association**. An association is a connection. If two ideas are associated, when you think of one you will automatically think of the other. In fact, **Empiricism** is the belief in sense perception, induction, and that there are no innate ideas. Theoretical tradition based on the empiricism is known as behaviorism.

Science uses an empirical approach. **Empiricism** (founded by **John Locke**) states that the only source of knowledge comes through our senses – e.g. sight, hearing etc. This was in contrast to the existing view that **knowledge could be gained solely through the powers of reason and logical argument (known as rationalism)**.

##### Some beliefs of the empiricism

- We have no source of knowledge other than sense experience.
- Mind is a blank sheet of paper/ a blank slate (it is gradually filled with experiences). Locke is famously attributed with holding the proposition that the human mind is a *tabula rasa*, in Locke's words "white paper", on which the experiences derived from sense impressions as a person's life proceeds are written. There are two sources of our ideas: sensation and reflection.
- Our knowledge is *posteriori* (*after birth*), dependent upon sense experience
- According to the Empiricist, the innate knowledge is unobservable and ineffective; that is, it does not *do* anything. The knowledge may sit there, never being used.
- Induction (inductive method)
- **Aristotle, John Locke, George Berkeley, and David Hume** are empiricists

- Much of **science** is founded on empiricist principles.

From the behaviourist perspective, three assumptions are held to be true. First, the focus was on observable behaviour rather than on internal cognitive processes. If learning has occurred, then some sort of observable external behaviour is apparent. Second, the environment is the shape of learning and behaviour, not individual characteristics. Third, principles of contiguity and reinforcement are central to explaining the learning process.

The teacher's role, in this perspective, is to provide an environment that elicits the desired behaviours and extinguishes the undesirable ones.

## **Rationalism and (cognitivism)**

Another way to achieve knowledge is through “**reason**” (without experience). This is the philosophy of **rationalism**. It rejects other possible sources of knowledge through sensory experience. In fact, **Rationalism** is the belief in innate ideas, reason, and deduction.

The rationalists believe that reality has an innately logical structure. Because of this, the rationalists argue that certain truths exist and that the intellect can directly grasp these truths. That is to say, rationalists believe that **certain rational principles exist in logic, mathematics, ethics, and metaphysics** that are so fundamentally true.. The rationalists had such a high confidence in reason that empirical proof and physical evidence are unnecessary to determine certain truths. In other words, "our concepts and knowledge are gained independently without sense experience".

Theoretical tradition (in psychology) based on the rationalism is known as cognitivism.

- The knowledge we gain by intuition (अन्तरस्करण) and deduction(अनुमान) or have innately is **superior to any knowledge** gained by sense experience.
- Superiority of *a priori* knowledge or innate ideas
- Deduction
- Contributors: René Descartes, Chomsky, Robert Mills, Gagné (1916 – 2002), Jerome Bruner (1915-2016)

## **Behaviorism (ब्यवाहारवाद)**

Behaviorism can be defined as a theory of psychology, which states that human and animal behavior can and should be studied in terms of **physical processes** only. This theory of psychology holds the belief that **behaviors are learned through positive and negative reinforcements**. The theory recommends that psychological concepts (such as learning) are to be explained in terms of **observable behaviors** that respond to stimulus. Watson and Skinner rejected the idea that psychological data could be obtained through introspection (चिन्तन मनन) or by an attempt to describe consciousness (चेतना)। According to behaviorists all psychological data is to be derived from the **observation of outward behavior**. This theory

explains how an **external event, a stimulus causes a change** in the behavior of an individual (a response) without using concepts like "mind" or "ideas" or any kind of mental behavior.

Behaviorism was an important influence on psychology, education and language teaching. The term 'behaviourism' was coined by John B. Watson (1912) of the early twentieth century (American). So, he is called the father of behaviorism. Other proponents of behaviorism are:

- i) Nineteenth century Russian, Ivan Pavlov
- iii) Early twentieth century American Edward Thorndike.
- iv) Mid-twentieth century American B.F. Skinner.

### **Three basic behaviorist ideas: -**

- 1) Conditioning (प्रत्यावर्तन वा अनुबन्धन)
- 2) Habit formation
- 3) The importance of the 'environment' Pavlov gave the idea of 'conditioning'.

In this idea, learning is seen as question of **developing connections between incidents (events)**. It is also known as **stimulus response bonds**. This process of developing connections is called **conditioning**. Skinner gave the idea of **habit formation**.

### **Cognitivism (संज्ञानवाद)**

Cognitive psychology is an information-processing psychology. This theory is also known as mentalism or nativism. This theory mainly stresses the acquisition of knowledge and growth of the mental structure. Cognitive theory tends to focus on the learning process: how information is received; how information is processed and organized into existing schema; how information is retrieved upon recall.

According to cognitivists, learning is not about the mechanics (यान्त्रीक प्रकृया) of what a learner does, but rather a process depending on what the learner already knows (existing information) and their method of acquiring new knowledge. Knowledge acquisition is an activity consisting of internal codification of mental structures within the student's mind.

Cognitivism is the study in psychology that focuses on mental processes, including how people perceive, think, remember, learn, solve problems, and direct their attention to one stimulus rather than another. The psychologist following the cognitive theories are also grouped as Gestalt psychology.

The fundamental concepts of cognitivism involve how we think and gain knowledge. It involves examining learning, memory, problem solving skills, and intelligence. Cognitive theorists may want to understand how problem solving changes throughout childhood, how cultural differences affect the way we view our own academic achievements, language development, and much more.

Cognitivism focuses on the inner mental activities – opening the “black box” of the human mind is valuable and necessary for understanding how people learn. Mental processes such as thinking, memory, knowing, and problem-solving need to be explored. Knowledge can be seen as schema or symbolic mental constructions. Learning is defined as change in a learner’s schemata.

people are not “programmed animals” that merely respond to environmental stimuli; people are rational beings that require active participation in order to learn, and whose actions are a consequence of thinking. Changes in behavior are observed, but only as an indication of what is occurring in the learner’s head.

### **Some concepts of cognitivism**

- The role of memory
  - Consciousness
  - Perception
  - Intelligence
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