Cognitive Psychology

3rd Year LMD

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**Lecture 2 : Perception**

**Perception Definition:**

In common terminology, perception is defined by Longman Dictionary of Contemporary English as “a) the way you think about something and your idea of what it is like; b) the way that you notice things with your senses of sight, hearing etc.; c) the natural ability to understand or notice things quickly.”

 In philosophy, psychology, and cognitive science, perception is the process of attaining awareness or understanding of sensory information. The word “perception” comes from the Latin words perceptio, percipio, and means “receiving, collecting, action of taking possession, and apprehension with the mind or senses.”

In the classical approach, perception is defined through three concepts:

**Distal stimulus**Out in the real world are objects and events—things to be perceived—such as this book or, as in my earlier example, trees and shrubs.

**The proximal stimulus:**to process information about these stimuli, it must first receive the information through one or more sensory systems—example, the visual system. The reception of information and its registration by a sense organ make up the proximal stimulusin particular to a surface at the back of each eye known as the retina. There, an image of the trees and cars, called the retinal image, is formed. This image is two-dimensional, and its size depends on your distance from the window and the objects beyond (the closer you are, the larger the image). In addition, the image is upside down and is reversed with respect to left and right.

**Percept**: the meaningful interpretation of the proximal stimulus is the percept—your interpretation that the stimuli are trees, cars, people, and so forth.

 Our perceptions are based on how we interpret all these different sensations, which are sensory impressions we get from the stimuli in the world around us. Perception enables us to navigate the world and to make decisions about everything, from which T-shirt to wear or how fast to run away from a bear.

**Perception Process** The perception process consists of three stages: selection, organization, and interpretation.

**Selection**

The world around us is filled with an infinite number of stimuli that we might attend to, but our brains do not have the resources to pay attention to everything. Thus, the first step of perception is the (usually unconscious, but sometimes intentional) decision of what to attend to. Depending on the environment, and depending on us as individuals, we might focus on a familiar stimulus or something new. When we attend to one specific thing in our environment—whether it is a smell, a feeling, a sound, or something else entirely—it becomes the attended stimulus.

**Organization**

Once we have chosen to attend to a stimulus in the environment (consciously or unconsciously, though usually the latter), the choice sets off a series of reactions in our brain. This neural process starts with the activation of our sensory receptors (touch, taste, smell, sight, and hearing). The receptors transduce the input energy into neural activity, which is transmitted to our brains, where we construct a mental representation of the stimulus (or, in most cases, the multiple related stimuli) called a percept. An ambiguous stimulus may be translated into multiple percepts, experienced randomly, one at a time, in what is called “multistable perception.”

**Interpretation**

After we have attended to a stimulus, and our brains have received and organized the information, we interpret it in a way that makes sense using our existing information about the world. Interpretation simply means that we take the information that we have sensed and organized and turn it into something that we can categorize. For instance, in the Rubin’s Vase illusion mentioned earlier, some individuals will interpret the sensory information as “vase,” while some will interpret it as “faces.” This happens unconsciously thousands of times a day. By putting different stimuli into categories, we can better understand and react to the world around us.

**Practice:** Close your eyes. What do you remember about the room you are in? The color of the walls, the angle of the shadows? Whether or not we know it, we selectively attend to different things in our environment. Our brains simply don’t have the capacity to attend to every single detail in the world around us. Optical illusions highlight this tendency. Have you ever looked at an optical illusion and seen one thing, while a friend sees something completely different? Our brains engage in a three-step process when presented with stimuli: selection, organization, and interpretation**.**