SENSATION AND PERCEPTION

Both sensation and perception are considered important aspects of one's mental development. Sensations are elementary impressions gathered by sense organs. When these impressions are interpreted and some definite meanings are attached to them, they take the form of perception. Sensation is input about the physical world obtained by our sensory receptors, and perception is the process by which the brain selects, organizes, and interprets these sensations. In other words, senses are the physiological basis of perception. Perception of the same senses may vary from one person to another because each person's brain interprets stimuli differently based on that individual's learning, memory, emotions, and expectations.

Sensation and perception are interrelated processes that are developed throughout the lifespan. Although they have a close relationship, sensation and perception have discrete qualities that differentiate one from the other.

Sensation is defined as the process in which a sensory receptor is stimulated, producing nerve impulses that travel to the brain, which in turn interprets such impulses as a visual image, a sound, taste, odor, touch, or pain. The physical stimulus present in the environment emits energy that is absorbed by a sensory organ (known as transduction), causing sensation.

Perception refers to the occurrence when the brain performs organization of information it obtains from the neural impulses, and then begins the process of translation and interpretation. It is a vital process that helps us rationalize or make sense of the information related to the physical stimulus. Perception occurs when the brain processes information to give meaning to it, by means of emotions, memories, etc.

Sensation and perception are elements that balance and complement one another. They work together for us to be able to identify and create meaning from stimuli-related information. Without sensation, perception will not be possible, except for people who believe in extrasensory perception or ESP. And without perception, our sensations would remain to be "unknown" to us since there is no mental processing of what we sense.

Sensation and perception are two completely different elements in terms of how they process information. In sensation, the physical stimulus, together with its physical properties, is registered by sensory organs. Then, the organs decode this information, and transform them into neural impulses or signals. These signals are transmitted to the sensory cortices of the brain. The line of difference between sensation and perception is now drawn; perception follows sensation. In the brain, the nerve impulses go through a series of organization, translation and interpretation. Once perception is finished, a person is able to "make sense" out of the sensations. For instance, seeing the light (sensation) is different from determining its color (perception).

Another example is that feeling the coldness of the environment is different from perceiving that winter is coming. Also, hearing a sound is different from perceiving the music being played.

Most psychologists believe that sensation is an important part of bottom-up processing. This means that sensation occurs when the sensory organs transmit information towards the brain. On the other hand, perception is a part of top-down processing. In this case, perception happens when the brain interprets the sensory information and sends corresponding signals to sensory organs for response to the physical stimuli.

Perceptual process

The process of perception involves the following:-

1. Objects in the environment often called stimuli
2. Energy waves from stimuli impinging on the appropriate sense organ
3. Sensation appropriate to stimulus
4. Interpretation of the sensation based on past experience