

SENSATION IN PSYCHOLOGY AND PHYSIOLOGY DIFFERENCES

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Abstract:

In this article, we have studied the anatomy of the human sense organs, in particular the development of the sense organs and the anatomical, physiological and psychological aspects of the sense organs. We have presented the similarities and differences obtained as a result of our research in our article below with clear examples and the latest information.

Keywords: Psychology, physiology, sense organs, nerve impulses, emotion.

Introduction

Sensation is the analysis of certain properties of objects and phenomena in the world in the brain . It arises on the basis of the excitation of the nerve center of the cerebral cortex by the action of matter on the sensory organs. Sensation is the first stage and component of knowledge of the world. On the basis of sensations, such forms of sensory knowledge as perception and imagination arise. Depending on the specific properties of external stimuli, all sensations are divided into bodily sensations (touch), visual sensations , auditory sensations, olfactory sensations, gustatory sensations and other types. Sensation arises in physical, physiological, psychological processes. In the physical process, any objects and phenomena affect the sensory organs and excite the peripheral ends of the corresponding sensory nerve. In the physiological process, excitation passes through the nerve conduction pathway to the corresponding central cell system of the cerebral cortex. In the psychological process, an analysis of the stimulus that affected us during nervous excitation occurs and it turns into synthesis - perception appears. The sense organs are associated with the activity of the large hemispheres of the

brain. The sense of sight occupies a leading place in the perception of reality in humans. The senses can be divided into 3 depending on where they are located:

- 1) extroreceptors - these are located on the surface of the body and include the senses of sight, hearing, smell, taste, and touch;
- 2) interoreceptors - sensations inside our body, including sensations in the intestines, liver, and lungs;
- 3) proprioceptors - located in muscles, tendons, ligaments. All sensations have their own characteristics . and has laws.

General Laws of Sensations The emergence of sensations occurs on the basis of certain laws.

The sensory organs are a specialized peripheral anatomical and physiological system that, thanks to its receptors, provides the receipt and initial analysis of information from the surrounding world and other organs of the body, that is, from the external and internal environments of the body.

The sense organs perceive the stimulus from a distance (for example, the organs of vision, hearing, smell); other organs (taste and touch) - only by direct contact. Some senses can compensate for others to some extent. For example, a developed sense of smell or touch can compensate for a poorly developed sense of sight (eyes) or smell (nose) .

Human sensory organs

The information received by the human brain from its sensory organs shapes its perception of the world around it and of itself .

Humans receive information through six primary senses.

eyes (sight),

ears (hearing),

tongue (taste),

nose (smell),

skin ,

vestibular apparatus (sense of balance and position in space, acceleration)

Information about stimuli that affect the receptors of the human senses is transmitted to the central nervous system . It analyzes the incoming information and identifies it (sensations arise). Then a response signal is produced, which is transmitted along the nerves to the appropriate organs of the body.

There are 6 types of external senses (motor faculties do not have a separate sensory organ, but they produce sensations). A person can experience 6 types of external senses: vision, hearing, smell, touch, taste, and kinesthetic sensations.

The pathways that emerge from the sensory organs in humans are the vestibular, auditory, visual, olfactory, tactile, and gustatory pathways of the central nervous system.

The ubiquitous media and the technology and consumerism that drives it, our attention is captured, held, and force-fed the beliefs, opinions, and “facts” of others. The social engineers who create the algorithms of our information ecosystem are so skilled that we can become confused and even disconnected from our own thoughts, feelings, and beliefs. In this new reality, it is increasingly important that we know the difference between what comes from outside and what is acting from within. It is crucial that we learn to listen to the thoughts, feelings, and intuitions that come from within us.

While it may be easier to passively accept the perspective of others without consulting ourselves, turning inward long enough to tune out the noise from the outside world and listen to the signals from our own mind, body, and brain better equips us to make the right decisions in this confusing and turbulent world. Decision-making theories are traditionally based on the logical and rational application of conscious analysis of benefits and costs. Yet, for most of us, making the right decision is more about feeling than making a list of pros and cons. While we are thinking, other processes seem to be happening inside us that influence our choices, sometimes overriding what we think makes the most sense. The successful gambler, business strategist, or athlete always seems to have a sixth sense about what to do—a intuition they may not even be able to articulate, which helps them overcome odds.

There is a lot of input and interpersonal processing going on outside of conscious awareness in the neural networks that process emotion and sensory and somatic information. So we learn things without even realizing it. Often, in hindsight, after something has gone wrong, we become aware of all the clues that were drowned out or ignored in the stream of conscious processing. These clues, only vaguely recognized and often ignored at the time, take on meaning and clarity in the rearview mirror. They are assessments of the world around us that we often don't realize we are doing. Sometimes they manifest in the body as a stomachache

or a muscle tension; other times there is an unknown feeling of what to do or what to do. As Jonas Salk put it, “Intuition tells the thinking mind where to look next.” Neurobiologist Antonio Damasio has hypothesized that we evolved to use bodily cues, such as muscle tone, heart rate, and endocrine activity, to make quick decisions about how to act in the physical and social world. These “somatic cues” translate unconscious feelings and emotions into felt instincts. This evolutionary strategy allows us to make quick decisions that require minimal thought in order to survive. In the modern world, these instincts can be combined with rational thinking to improve decision-making and trust that intuition is based on science. Gut feelings are the result of multiple channels of information processing and provide a roadmap that connects our emotions and physical sensations to a given environment[4]. This is why it is so important for all of us to develop our center, our self-awareness, and our intuition at this time in history. Learning to read all the information coming from the world means balancing reason with the feeling that resides within the silence at our core. In these confusing and challenging times, as we struggle to make decisions about our lives, it is more important than ever to listen to and nurture these vital instincts.

physiologists and psychologists in the study of sensation is reflected in their approaches:

1. Physiological approach (Physiologists)

Physiologists study sensation primarily as a process related to the functioning of the nervous system and brain.

the sensory organs (eyes , ears, skin, nose, tongue) and their processing by the brain.

They study biological processes such as neural signals, receptor sensitivity , and the transmission of nerve impulses.

2. Psychological approach (Psychologists)

Psychologists view intuition as a subjective experience within the human mind . sensation and perception in relation to human emotions, consciousness, attention, and thinking.

They analyze aspects such as sensory experiences generated through perception, illusions, psychological adaptation, and the influence of attention on perception.

Conclusion:

Physiologists study sensation as a biological process, while psychologists study it as a psychic experience. The two disciplines complement each other because, while human sensations have a physiological basis, how they are reflected in the mind is the subject of research in psychology.

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