

Types of tactile perception

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Tactile perception is the ability of the skin and motor analyzers to reflect the spatial and physical properties of objects.

Different types of sensitivity are involved in tactile perception: tactile, pain, temperature, muscular-articular.

Distinguish between one-handed (monomanual) and two-handed (bimanual) tactile perception. With any method of perception, an image arises that is adequate to the tactile touch of the object.

When touching complex objects with one hand, signals are unstable, the proportionality of the ratio of parts of the object and between other objects is disturbed, the speed of perception decreases compared to two-handed touch

The main phases of the bimanual tactile examination of objects are:

- 1) indicative phase, when the movements determine the position of the object in the tactile field;
- 2) the phase of feeling the object, during which the contour details are analyzed;
- 3) the phase of feeling the object, during which tactile signals are synthesized and an integral spatial image is formed.

The passive form of touch is observed when various types of skin sensitivity are combined under conditions of relative rest of the receptor surface and the object in contact with it.

As a result of contact, sensations arise that reflect in perception a number of physical, spatial and temporal properties and relationships of objects.

Passive touch does not reflect the full set of attributes of objects and does not recreate a holistic image.



Active sense of touch (haptic) is formed as a result of actively feeling objects.

Active sense of touch is based on the joint activity of the musculocutaneous and motor analyzers.

In the process of hand movement, the contours and shapes of objects are isolated.

Active touch, together with residual vision in partially seeing children, is the main way of reflecting the spatial characteristics and properties of the objective world.

Active touch is the basis of sensory cognition of the blind, and is fundamental in educational and work activities.



Mediated (instrumental) touch is a form of tactile perception in which an object is touched with the help of a tool or instrument, for example, feeling the road with a cane, reading a relief-point font by the blind with a pencil, touching the road relief through the soles of shoes.

Indirect perception can take place mainly in conditions when objects are difficult to reach for direct touch.

Feeling is an action specific to active touch, which “ensures the sequential coverage of all elements of the object's contour by the state of its interaction with the receptor surface” and in the process of which a sequential analysis and synthesis of stimuli arising from the interaction of the hand with the object is carried out.

This action, reproducing the contours, volume and ratio of the parts of the perceived object, is composed of the mass of the elements of movement and rest of the hand. They are conventionally called points of motion and rest.

Active touch, as well as passive, can be bimanual (two-handed) and monomanual (one-handed).

With bimanual active touch of complex-shaped objects, the left hand (in right-handers) predominantly sets the starting position and performs the supporting function of fixing the reference point.

The right hand carries out a sequential coverage of the surface of the object relative to the starting point.

In the course of movement, the hands alternately change their supporting and motor-sensory functions.

When perceiving volumetric shapes at the beginning of the palpation process, as a rule, the left hand fixes the reference point (usually the lower left corner), and the right hand sequentially probes the right part of the object.

At the end of the process, the hands change roles: the right one fixes the reference point (usually the lower right corner), and the left one feels the left side of the object.

At each moment of perception, hands are placed on opposite faces of the object

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