

## **Space perception by tactile sense and stereognosis**

Space perception by tactile sense and stereognosis (= ability to identify 3-D object by skin receptors) are highly specialized cognitive functions. Besides skin receptors, very important in the space perception and stereognosis are also higher stages of central nervous system (analysis and synthesis of stimuli received by sense receptors). Tactile sense and distinguishing are dependent on density of distribution of tactile receptors in the skin on various parts of the body.

This practical task has a purpose to identify (without visual help) the known 3-D objects by tactile sense and 2-D characters and simple pictures drawn on the palm or dorsum of the hand, or on the forehead.

### **Needs**

Common objects of various shape (coins, pens, keys, cubes, small balls etc.).

### **Methods**

Wrap the eyes of investigated person by neckerchief. Ask the investigated person to identify gradually the small objects placed into the palm of the hand. Then using a pen or sharp object draw the characters, numbers or other simple shapes on the finger-pulps and on the palm or dorsum of the hand and ask the investigated person to identify them. The trial is of higher value if the investigated person can draw the identified object on the piece of paper. Compare the ability to identify 2-D pictures and 3-D objects on the finger-pulps, palm and dorsum of the hand.