Abstract

Facial recognition has been a major scientific topic. What particular cognitive process is responsible for recognition was a great unknown. Now, scientists are most inclined to the theory of holistic facial perception that we perceive the face as a whole. For successful face recognition it is necessary to pay attention to individual components and their configuration. Thanks to this approach, a person is an expert on faces and can obtain many types of information from them in a short time. Behavioral and neurological evidence supported the theory of holistic facial perception. The main behavioral tasks that support holistic facial perception are three: part-whole task, face inversion task, and composite task. The first two showed that face recognition negatively affects both the manipulation of individual components and their configuration. The composite task then shows that we are not able to perceive individual parts of the face independently. Holistic perception in animals has not been unequivocally confirmed, but for animals the face is as important as for humans. Moreover, the possibility of applying holistic perception to objects other than faces is currently being pointed out. Holistic perception today appears to be a robust type of perception applicable to various stimuli that meet the conditions. Its evolution may be induced by various social and environmental factors.