Biological and psychological significance of emotions

Emotions are human experiences accompanied by feelings of pleasantness and unpleasantness, pleasure and displeasure, as well as their various shades and combinations. Pleasure and displeasure are the simplest emotions. Their more complex variants are represented by such feelings as joy, sadness, sadness, fear, anger.

Suddenly finding ourselves near a precipice, we experience the emotion of fear. Under the influence of this fear, we retreat to a safe zone. The situation itself has not yet harmed us, but through our feeling it has been reflected as threatening our self-preservation. By signalling the immediate positive or negative meaning of various phenomena, emotions reflexively regulate our behaviour, stimulate or inhibit our actions.

Emotion is a generalised, generalised reaction of the organism to vital influences (from Latin «emoveo» - to wave).

Emotions regulate mental activity not specifically, but through the corresponding general mental states, influencing the course of all ment

The peculiarity of emotions is their integration – arising under appropriate emotiogenic influences, emotions take over the whole organism, unite all its functions into a corresponding generalised stereotyped behavioural act.

Emotions are an adaptive product of evolution – they are evolutionarily generalised ways of behaviour in typical situations.

Exactly thanks to emotions the organism turns out to be extremely favourably adapted to surrounding conditions as it, even without defining a form, type, mechanism and other parameters of influence, can react to it with saving speed by a certain emotional condition, reducing it, so to speak, to the general biological denominator, i.e. to define useful or harmful for it this concrete influence.

Emotions arise in response to features of objects that are key to satisfying a particular need. Certain biologically significant properties of objects and situations cause an emotional tone of sensations. They signal an organism's encounter with a sought-after or dangerous property of objects. Emotions and feelings are subjective attitudes to objects and phenomena arising as a result of reflection of their direct connection with actualised needs.

All emotions are object-related and bivalent – they are either positive or negative (because objects either satisfy or do not satisfy the corresponding needs). Emotions induce stereotypical forms of behaviour. However, the peculiarities of human emotions are determined by the general law of human mental development – higher formations, higher mental functions, being formed on the basis of lower functions, rearrange them. Emotional-evaluative activity of a human being is inseparably connected with his conceptual-evaluative sphere. And this sphere itself affects the emotional state of a person.

Conscious, rational regulation of behaviour is, on the one hand, prompted by emotions, but on the other hand, it is opposed to current emotions. All volitional actions are performed in opposition to strong competing emotions. A person acts in defiance of pain, thirst, hunger, and all kinds of urges.

However, the lower the level of conscious regulation, the more freedom is given to emotional-impulsive actions. These actions have no conscious motivation, the goals of these actions are also not formed by consciousness, but are unambiguously predetermined by the nature of the impact itself (e.g., impulsive detachment from an object falling on us).

Emotions dominate where there is insufficient conscious regulation of behaviour: when there is a deficit of information for the conscious construction of actions, when the fund of conscious ways of behaviour is insufficient. But this does not mean that the more conscious an action is, the less important emotions are. Even thinking actions are organised on an emotional basis.

In conscious actions emotions provide their energetic potential and strengthen the direction of action, the efficiency of which is most probable. Allowing greater freedom of conscious choice of goals, emotions determine the main directions of human activity.

Positive emotions, constantly combined with the satisfaction of needs, themselves become an urgent need. A person strives for positive emotions. Deprivation of emotional influences disorganises the human psyche, and long-term deprivation of positive emotional influences in childhood can lead to negative deformations of personality.

Substituting needs, emotions themselves are in many cases an inducement to action, a factor of motivation.

There is a distinction between lower emotions, connected with unconditional-reflex activity, based on instincts and being their expression (emotions of hunger, thirst, fear, egoism, etc.), and higher, truly human emotions – feelings.

Feelings are connected with the satisfaction of socially developed needs. Feelings of duty, love, comradeship, shame, curiosity, etc. Are formed in a person as he or she is included in social relations, i.e. as the individual becomes a person. When experiencing these or those feelings, a person operates with historically developed moral and aesthetic concepts («good», «evil», «justice», «beautiful», «ugly», etc.),

Thus, feelings are related to the second signalling system to a greater extent than emotions. Emotions are situationally conditioned, feelings can be long-lasting and stable. The most stable feelings are personality traits (honesty, humanity, etc.).

The fact of the close connection of emotions with vital processes points to the natural origin of at least the simplest emotions. In all those cases when the life of a living being comes to a standstill, is partially or completely lost, we first of all find that its external, emotional manifestations have disappeared. An area of skin temporarily deprived of blood supply ceases to be sensitive; a physically ill person becomes apathetic, indifferent to what is happening around him, i.e. insensitive. He or she loses the ability to respond emotionally to external influences as he or she would in the normal course of life.

All higher animals and humans have structures in the brain that are closely related to emotional life. This is the so-called limbic system, which includes clusters of nerve cells located under the cerebral cortex, in close proximity to its centre, which controls the main organic processes: blood circulation, digestion, glands of internal secretion. Hence the close connection of emotions both with human consciousness and with the states of the organism.

Having in mind the important vital significance of emotions, C. Darwin proposed a theory explaining the origin and purpose of those organic changes and movements that usually accompany strongly expressed emotions. In it, the naturalist drew attention to the fact that pleasure and displeasure, joy, fear, anger, sadness are approximately the same way manifested in both humans and great apes. C. Darwin was interested in the vital meaning of those changes in the body that accompany the corresponding emotions. Having compared the facts, Darwin came to the following conclusions about the nature and role of emotions in life.

1.Internal (organic) and external (motor) manifestations of emotions fulfil an important adaptive role in human life. They set him up for certain actions and, moreover, they are for him a signal of how another living being is set up and what he intends to do.

2. Once upon a time in the evolution of living things, those organic and motor reactions which they have at present were components of full-fledged, unfolded practical adaptive actions. Subsequently, their external components have declined, but the vital function has remained the same. For example, a man or an animal in anger grinds its teeth, tenses its muscles as if preparing for an attack, its breathing and pulse rate increase. This is a signal: a living being is ready to commit an act of aggression.