

THE BRAIN'S ROLE IN BODY MANAGEMENT

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Abstract: This article highlights the scientific breakthroughs of renowned researchers who have explored how the brain governs the body. The human body coordinates its functions with other organs and systems through the brain. Prominent scientists like I.P. Sechenov and N.P. Pavlov have extensively studied and shared insights into brain activity. Despite numerous studies, the human brain remains one of the most enigmatic and least understood aspects of science. It has yet to fully reveal its mysteries. The brain's gray matter shapes a unique inner world, filled with memories, fantasies, emotions, and desires. With the advancement of innovative research techniques and the availability of cutting-edge equipment in the field of neuropathology, scientists have uncovered many of the brain's hidden secrets.

Key words: neurophysiology, brain, memory, organ, medicine, function, arousal signal.

РОЛЬ МОЗГА В УПРАВЛЕНИИ ТЕЛОМ

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Аннотация: В этой статье освещаются научные прорывы известных исследователей, которые исследовали, как мозг управляет телом. Человеческое тело координирует свои функции с другими органами и системами через мозг. Такие выдающиеся ученые, как И. П. Сеченов и Н. П. Павлов, широко изучали и делились своими идеями о мозговой активности. Несмотря на многочисленные исследования, человеческий мозг остается одним из самых загадочных и наименее понятых аспектов науки. Ему еще предстоит полностью раскрыть свои тайны. Серое вещество мозга формирует уникальный внутренний мир, наполненный воспоминаниями, фантазиями, эмоциями и желаниями. С развитием инновационных методов исследования и появлением передового оборудования в области невропатологии ученые раскрыли многие скрытые секреты мозга.

Ключевые слова: нейрофизиология, мозг, память, орган, лекарство, функция, сигнал возбуждения.

With the development of new methods in neuroscience, the natural potential of the human brain becomes the subject of scientific research. V.M. Bekhterev, N.P. Kobozhev and many others have shown in their research that the brain is not capable of fully conscious and completely unconscious functions due to the low transmission rate of electrical influences of the brainstem¹. It is known that impulses in synapses are delayed by 0.2-0.5 milliseconds, whereas human thinking is developed very quickly. At this stage of the development of neopathophysiology, we understand the function of nerve cells very well. According to scientist Anokin's research, the system of sensory-biological effects is temporarily involved in the formation of dependent reactions in each cortical cell. PET allows you to identify areas that perform a certain mental function, but you don't know what is happening in these areas, in what order and how signals are sent to nerve cells and how they interact with each other. The brain map identifies areas responsible for certain mental functions. But there is another, very important level of interaction between cells and the brain - a group of newborn nerve cells, whose functions are of great scientific interest.

Many areas of the brain are involved in controlling the body. The brain is an important organ of the human body because it provides information about the condition of our muscles, joints and skin, intelligently controls our body, especially when a person is ill: the brain turns on auto mode, many functions work autonomously. This is due to the fact that on the frontal surface of the cortex, information about receptors is located close to the center of the head. That is, the area is located in the occipital cortex, which is responsible for understanding the state of the body and its organs.

In cases of lethargy or coma, certain regions of the human brain detect that the person seems to have left their body and is observing themselves from a different part of the room, often from above. The person then recounts this experience to doctors once they are revived. These visions are managed by the multimodal sensory cortex (located in the temporal region), which serves as the central hub of the brain's network, connecting various body parts into a unified form and thus capturing the image.

Furthermore, the brain has a topological map of spatial locations, primarily based on visual data. This map outlines the boundaries of body parts and their

interrelations. To the left of these boundaries lies a temporary system linked to the encoding of shapes and the "what?" function.

Additionally, the brain generates semantic representations. While "images" only convey information about one's own body, semantic representations describe the entire body as well as those of others. This process plays a crucial role in shaping our perception.

The body's interaction with the external environment is based on a model of the outside world and a model of the body created by the brain (the "body motif"). Body behavior is based on the internal structure of the body and the control of this action by the brain (whether we want to take something or start something). The course of movement is often compared to waiting for the actual update of information about emotions.

In his work "The Image of the Brain," I.M. Sechinov argued that intellectual processes are based on a reactive theory of action. He gave positive evidence of the reflexive nature of mental activity, that is, all experiences, thoughts, and feelings come from any general stimulation of the body¹.

Pavlov developed his theory of dependent reactions, according to which the horizontal cortical temporal relationships in the formation of dependent reactions are characterized by nerve centers - involuntary centers and the influences of dominant centers.

There was a lot of research by V.M. Bekhterev, who also studied the brain. He introduced a method to study the pathways of nerve fibers and cells, thereby creating an "atlas of the brain." One of the real breakthroughs in detecting deep brain activity is the possibility of direct contact with brain cells. The method involves the direct transfer of electrodes to the brain for diagnostic and therapeutic purposes. After stimulation, the electrodes are implanted in different parts of the brain, enhancing their activity, which allows us to study the processes there.

It was believed that the brain was divided into well-defined areas, each of which was responsible for its specific function. For example, this area is responsible for turning the little finger, and this area is responsible for love. These searches are based on simple observations.

Currently, it is clear that not everything is so simple: brain cells from different areas of the brain function very hard, and it is impossible to give a clear assessment of the functioning of the brain, memory, speech. It is still difficult to say whether this brain unit is not a part of the brain, but is a broader network and is responsible

for the perception of only one area, while the other is responsible for the perception of words and sentences.

The complex function of the brain, which provides a high level of mental activity, is similar to the flash of a firework: first we see a lot of light, then there is blinking, fading, some parts are dark, others are flashing. Similarly, an excitatory signal is sent to a specific area of the brain, but the activity of nerve cells follows its own specific rhythm. Due to these features, the destruction of some brain cells may be irreversible for the brain, while others can change the properties of nerve cells, namely plasticity, in order to "reconstruct" nerves.

If cortical neurons independently solve a particular problem in the brain, thereby increasing their activity, then the frequency of deep nerve impulses decreases. The types of brain functions are possible when decoding neural code, meaning you can understand how the structures and structures of individual non-synchronous systems are connected to the entire brain.

According to the researchers, a high-frequency area was found around the brain that differs from the normal biological area of humans. The mental area provides a rapid overall course of all neuropathological processes. It was decided that there was so much energy left in this mental area that it needed special satellite crystals. They allow you to store important information about the release of energy in your body's proteins.

In the 1960s, Professor Kobozhev from Moscow State University, while investigating the phenomenon of consciousness, concluded that the physiological anatomy of the brain alone does not ensure mental and other cognitive functions. This is made possible by external sources of hypersensitive particles that serve as a foundation for the release of energy influencing mental and emotional states. Research has demonstrated that organelles are capable of capturing the flow of psychic energy. It was discovered that adrenal crystals function as carriers of holograms, which determine the spatial development of all psychological events created at birth. The fat gland crystal contains significant information about various positive and negative experiences in a person's life.

The psychic effects of these single crystals dictate how and what events unfold in a person's life. Many individuals are unaware of this process and lack full awareness of their energy and informational potential.

In critical situations where immediate action is necessary, the intense production and release of "heavy" energy is triggered, signifying the discharge of a large

amount of energy from its source. Metaphorically, one might say that a person possesses their own nuclear reactor. This sparks a self-sufficient psychological process akin to an epilepsy lens and activates an anti-crisis program. However, the release of this powerful supernatural energy is short-lived, and once the crisis is resolved, the overwhelming moments of initial psychological stress are forgotten. Many individuals are unable to consciously control psychic energy and utilize it to solve various problems.

Contemporary neuropathological science focuses heavily on studying the release of psychological energy in the brain. Numerous institutes and laboratories are working on theoretical aspects of this field, and their progress enables practical psychology to tackle the challenge of activating the reservoirs of the human psyche. Standard issues can be addressed by accumulating experience and strengthening the nervous system through psychological training. More complex and unconventional problems can be resolved by activating efficient development programs that awaken the latent potential of the psyche. This approach makes it possible to fully unlock the individual's potential and offer effective methods for its realization.

In 40-70 years, the brain has its own characteristics. The mental "strength" of a healthy lifestyle does not decrease with age, but only increases. The maximum expression of body function is from 40 to 60 years. Since the age of 50, people have been using both hemispheres to solve problems.

It is believed that middle-aged people are more resistant to stress and are able to work more effectively in situations of severe emotional stress. Brain neurons do not die if a person does not have a serious mental function. The amount of white matter in the brain increases with age and reaches a peak after 60 years, with a significant increase in experiment¹. The brain is considered strong, full and ready to work at the age of 40-70 years, but it is in decline and does not function normally. Some psychologists have come to the same conclusion: with age, the brain begins to function more efficiently than at a young age, if a person leads a proper lifestyle.

In conclusion, social neuroscience, in practice, is an interdisciplinary field that brings together the scientific interests of researchers from various sectors. Clearly, in the realm of geopolitics, Marx's prophecy is becoming a reality in the sense that, in the future, there will be no significant distortion in the physical and social sciences. Instead, it will evolve into a great science.

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