

Right-brained or left-brained term paper example

[Health & Medicine](#), [Body](#)



Memorizing a mathematics formula, reading in front of the class, and thrusting the hand after mistakenly touching a hot object, are some of the common incidents experienced in life. Not only this, calling a logical and a rational man as left brained and labeling an emotional person as a right brained, are some of the observable activities which one often comes across. All such processes/ behaviors which connect people to the outside world are rooted deep inside the human brain which along with spinal cord, neurons, and nerves forms the nervous system. Despite the distant image of a brain resembling a giant walnut, it is a complex pinkish-grey mass where human memory, aspirations, and thoughts reside. The brain is not only responsible for decisions, consciousness, and behaviors but it is verily that important organ which has enabled mankind to rule, fight, and achieve.

The left hemisphere of the brain is the centre for learning, writing, language, speech and it controls the right sensory and motor activities. It has a reality-based nature and analyzes the logical progression of problems by concentrating on facts and focuses on planning activities. On the other hand, the concrete and intuitive characteristic of the right hemisphere makes it responsible for the left sensory and motor activities. Moreover, this part governs the creativity and the fantasy of man often making him switch between tasks. Due to these functions specifically associated with each hemisphere, brain myths often characterize people as left-brained or right brained. This is on the basis of the split brain experiment conducted by Rogert Sperry long time back (Green 21). Since then several studies have been conducted which scientifically often disregard the notion that left brained people are better off than the right brained or vice versa. This is

mainly because of the fact that during certain activities, a specific part of the brain is activated. For instance, while solving a statistics problem, the left part is in action whereas while imagining a story the right brain is active. Therefore, both the hemispheres are equally important for carrying out all the processes in the human body. Other brain parts such as the Cerebrum is known as the thinking section of the brain as it controls the voluntary function of the muscles. At the back is the cerebellum which is responsible for the movement and the coordination of human body as compared to the hypothalamus which controls the body temperature (Curry 6).

In order to understand the functioning of the brain, it is important to discuss the role of the nervous system which regulates the voluntary/involuntary actions of the human body and also governs the way in which a signal is carried from the brain to the external world and the organs. The nervous system is divided into the central nervous system which consists of the governing centre being the brain and the spinal cord (the reflex centre), the peripheral nervous system which consists of nerves and the sympathetic nervous system providing the energy and resource to the body. The brain consists of specialized cells known as neurons which are responsible for transmitting and receiving information from and to the whole body. It is believed that the brain consists of over 1 billion neurons and the arrangement of these cells typically makes the brain a highly complex organ. Neurons come in various shapes and sized depending upon the function it has to perform. The known structure of a neuron comprises of a soma; a cell body which retains the life of the neuron. The long projection of the cell is known as the axon that carries the electrical message/impulse from the

soma to the terminal buttons at the end of the cell. Upon receiving the impulse, the terminal buttons transmit a chemical; which either excites or inhibits the other neuron with which it is communicating. Since neurons communicate with each other, another important part of the cell is the dendrites which receive these messages that are then transmitted to other neurons via a junction known as the synapse. In addition to the role of neurons, the nervous system comprises of other supporting cells which protect and nourish the neurons (Carlson 25).

While examining the functions performed by a neuron, it is quite intriguing to grasp the complexity of the mechanism behind everyday actions. For instance, one of the common behaviors noticed in routine life is the reflex actions. Some of these include the way a hand is jerked off after coming in contact with a hot object or when an eye blinks as something suddenly comes close towards the eye. As a matter of fact, behind these actions is a whole sensory process taking place in the human body. As soon as the hand touches a hot object, a sensory neuron (which carries the message to the brain/spinal cord) detects this dangerous stimulus and stimulates the dendrites. Upon this stimulation, a message is sent to the terminal buttons present in the spinal cord via an axon. In other words, a neurotransmitter is released from the terminal button of the sensory neuron that excites the interneuron. It excites the motor neuron (carries the impulse from the brain/spinal cord to the muscle/gland) whose axon connects to the nerves and travel down to the muscle (Carlson 25). Consequently, the muscle contracts and the hand is moved away from the hot object. In description, the process appears to be technically long regardless of the pace with which

the hand is pulled back in reality. As a matter of fact, it is important to differentiate between the brain function of perception and sensation over here in order to further relate it with the mentioned reflex action.

The sensory organs include the eye, nose, ears, tongue and skin. Sensation is the process whereby which these sensory organs receive information. For vision, sensation is the manner in which the light enters the eye and an image is formed on the retina. Similarly for hearing, the procedure of sound waves entering the ear and reaching the cochlear nerve is known as the sensory process. Sensation in other words refers to the way sensory stimulation such as sound is transformed into a neural signal that could be understood by the brain. However, interpreting these sensations is known as perceptions which refer to attaching a meaning to the sensory signals which enter the brain. Perceptions help differentiate between the sound of a cat and a dog and red or a green traffic light. The idea of the quality of a sensation and the specific stimuli becoming a sensation is quite intriguing to analyze. Interestingly, the red color of the tomato and the fragrance of a Gucci scent are the creation of the neurons and the brain. For this reason, psychologists emphasize on the term transduction; a process that initiates upon the sensory neuron detecting a physical stimulus that ultimately reaches a sensory organ thereby activating the receptors. Consequently, the excitation of the receptors is converted into a neural signal. Furthermore, the signal detection theory that is widely studied across several disciplines focus upon resolving queries regarding how well a person receives a stimulus; the variance in understanding a university lecture, and the question as to why one friend is able to detect a faint star more often as compared to the other

(May 2).

Thus, although behaviors like recognizing a friend in a crowd, kicking a football, or identifying the color of an apple may appear easy, the mechanism behind these actions are quite complex. The intricacies of these actions could be understood by the function of the brain which is responsible for human life because of which, one must take special care in the diet and exercise which determines the well being of human body.

References

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