



Finding the Mind's Home: A Scientific Discovery

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Abstract

Mind is always a topic of discussion and debate. The core unit of psychology is behavior but still the word psyche insist us to discover the mind. Many have tried to discover the mind as part of that Marvin Minsky said that "the mind is what the brain does." Yet the mind was considered as the colloquial language of the brain, it should be the fundamental aspect of the existence of the human mind in the body. But this paper reveals the hidden things related to the mind. Mind is not the colloquial language of the brain. Both are different entities. Thus it questioning about the schools of thought in psychology.

Keywords: Mind; Brain; Schools of Thought; Structuralism; Functionalism; Gestalt; Behaviorism; Humanistic

Introduction

Mind is always a topic of discussion and debate. It's been years since the discipline psychology has developed. While we search the root of psychology we can see it was combined with philosophy. It's been merely 100 years since psychology has been developed distinctively from its development root to philosophy. The term psychology has derived from the Greek word psyche and logos. Psyche means mind, soul or spirit and logos means study. That means the term psychology means the study of mind. The term itself makes the discipline to look at the mind. Which is not an organ, cannot sense it, see it, or even hear it. From the history of psychology, many psychologists have tried to define the discipline. William James has defined psychology as "the study of mind". William Wundt defined psychology as the "study of consciousness".

Now psychology is recognized as "the study of human mind and behavior". Anyway, many have tried to define what is mind, where it is located, what is its structure, functions and all. As part of this, schools of thoughts emerged. Structuralism mainly focused on the structure of mind and mainly they used introspection as a technique. Functionalism focused on

the functions of mind. Gestalt stated that "whole is greater than some of its part" [1]. Behaviorism looks at the overt expressions. Humanism focused on the phenomenal field of the person and cognitive focused on cognitive functions of the person. But still, none of them discovered the location of mind.

The mind encompasses all psychological phenomena and capacities, including consciousness, thought, perception, sensation, emotion, mood, motivation, behavior, memory, and learning. The term is sometimes used in a more narrow sense, referring only to higher or more abstract cognitive functions like reasoning and awareness. Minds were traditionally thought of as immaterial substances or independent entities, in contrast to matter and the body. In contemporary discourse, they are more commonly viewed as characteristics of other entities and are frequently interpreted as capacities of material brains. The precise definition of mind is disputed, and while it is widely accepted that some non-human animals have minds, there is no agreement on where the boundary lies [1]. Despite these disagreements, most people agree that the mind is central to most aspects of human life, serving as the source of consciousness, emotions,

thoughts, and a sense of self. Psychology, cognitive science, neuroscience, and philosophy are some of the major fields of study that focus on the mind.

The words psyche and mentality are commonly used as synonyms for mind. They are frequently used interchangeably with the terms soul, spirit, cognition, intellect, intelligence, and brain, but their definitions are not identical. Some religions regard the soul as an independent entity that is the immaterial essence of humans, is divinely created, survives physical death, and is immortal. The term spirit has additional meanings that are not directly related to mind, such as a vital principle animating living beings or a supernatural being inhabiting objects or places. Cognition refers to specific mental processes that involve the acquisition of knowledge and the processing of information. The intellect is a mental capacity that is responsible for thought, reasoning, and understanding. It is closely related to intelligence, which is defined as the ability to acquire, comprehend, and apply knowledge. The brain is the physical organ that controls the majority, if not all, of mental functions.

Different cultural and religious traditions frequently employ different concepts of mind, resulting in varying responses to these questions. Some believe that mind is unique to humans, while others attribute mental properties to non-living entities (e.g., panpsychism and animism), animals, and deities. Some of the earliest recorded speculations linked mind (sometimes equated with soul or spirit) to theories about life after death, as well as cosmological and natural order, as seen in the teachings of Zoroaster, the Buddha, Plato, Aristotle, and other ancient Greek, Indian, and later Islamic, and medieval European philosophers. Psychologists including Freud and James, as well as computer scientists like Turing, developed influential theories about the nature of the mind. The possibility of nonbiological minds is investigated in the field of artificial intelligence, which collaborates with cybernetics and information theory to better understand how information processing by nonbiological machines is similar to or different from mental phenomena in the human mind. The mind is also depicted as a stream of consciousness, with sense impressions and mental phenomena constantly changing [2].

Schools of Thought

Structuralism

Structuralism is thought to be the first schools of thought in psychology. William Wundt associated with Titchner for this school of thought. They mainly used the technique called introspection to find the structure of mind. It is about looking on to our inner world. It is a kind of self-observation. It was to observe our own thoughts and sensations. But it could've

biased or misunderstand one's own inner world by the person itself. Thus wasn't a good option and the technique got rejected in future by saying that it is not scientifically proven. Again, in later years some includes humanistic thinkers were on the opinion which is similar to introspection. Humanistic thinkers especially Carl Rogers developed individual psychology where the individual is the source of everything, only he or she knows what is happening surrounding themselves. Wundt names the structuralism as voluntarism. Later Titchner changed it to the name structuralism.

Functionalism

Functionalist psychologists may investigate how the emotion of fear protects people from potential harm, leading to behaviors that aid in survival. Functionalism is a theory that addresses the nature of mental states. Functionalism defines mental states based on their actions rather than their composition. Wundt is perhaps the most well-known critic of functionalism. "This is literature. He described functionalist William James' book *The Principles of Psychology* as "beautiful, but not psychology." Functionalism is exemplified by families. Functionalism defines the family as a societal structure that provides for the reproduction and protection of children [3]. Families are the primary agents of socialization, promoting an understanding of expected behaviors, norms, and values.

Gestalt Psychology

Gestalt psychology is a school of thought. It considers the human mind and behavior as a whole thing rather than a separate part. Gestalt psychology suggests that when attempting to make sense of our surroundings, we should not focus only in a single aspect but should consider everything related to it and notice even minor details. Instead, our mind tend to perceive objects as components of larger systems is a German word that roughly translates to "configuration" or the way things are put together to form a whole object. Holism that the idea that the whole is greater than the sum of its parts, is a fundamental principle of Gestalt psychology. This school of psychology has made significant contributions to the modern study of human sensation and perception. Gestalt laws emphasize that people do not focus on each small component. People's minds are more likely to perceive visual objects as components of more complex systems.

Humanistic Psychology

Humanistic psychology focuses on the whole person. It emphasizes the concepts like free will, self-efficacy, and self-actualization. Rather than focusing on human dysfunction, humanistic psychology aims to help people reach their full potential and maximize their well-being. Humanism is a philosophy that focuses on human factors rather than

religious, divine, or spiritual matters. Humanism is based on the idea that people have an ethical responsibility to live fulfilling lives while also contributing to the greater good of all people. They view human as capable to do everything and will go to any extent to acquire the needed skills [4]. They also postulated that the behavior of each individual entity should be based on the consideration of the person's phenomenology. Humanistic psychologists are especially concerned with uniquely human dimensions such as, creative and transcendent experiences, as well as the quality of human welfare. As a result, humanistic psychology aims to make significant contributions to psychotherapy, education, theory, philosophy of psychology, research methodology, organization and management, and social responsibility and change.

Behaviorism

The behaviorist school of thought believes that behaviors can be scientifically described without relying on internal physiological events or hypothetical constructs like thoughts and beliefs, making behavior a more productive area of focus for understanding human or animal psychology. The two main types of conditioning in behaviorism are classical and operant. Burrhus Frederic Skinner dubbed his particular brand of behaviorism radical behaviorism (1974). Radical behaviorism is the philosophy underlying the science of behavior. It seeks to comprehend behavior as a result of environmental histories with reinforcing consequences. This applied behaviorism rejects private events such as thinking, perceptions, and unobservable emotions as causal explanations for an organism's behavior. Behaviorism focuses on outward expressions [5]. By analyzing these schools of thought we can understand each and every thought that is tried to understand things which yet didn't discover its existence since its location didn't find and no one exactly knows about mind.

Brain the Colloquial Term of Mind?

Marvin Minsky said, "The mind is what the brain does." To understand the mind, we must look to neuroscience and the brain for answers. The mind is inextricably linked with the brain. Brain injuries alter a person's perception, cognitive abilities, and personality. Changes in brain chemistry can produce the same results. There are no "mental substances" that emerge along some phylogenetic branch of our evolutionary history, nor is there a stage in ontogeny when we receive a non-physical infusion of mind-stuff [6]. We've come a long way since Ambrose Bierce's description of the mind in *The Devil's Dictionary* as "a mysterious form of matter secreted by the brain." It doesn't help that many possible solutions to the "mind=brain" equation appear illogical. Some argue that the mind extends beyond the brain to encompass

the entire body and even parts of the environment, or that it is immune to physical laws. Mental phenomena manifest physically within the brain. Functionalists hold that the mind is simply what the brain does, which is a procedural view.

The mind is associated with the brain. The two terms are often used interchangeably. The brain is considered a physical entity, while the mind is considered a mental entity. The mind is a bodily function that manifests as mental phenomena such as perception, thinking, sensation, reasoning, and memory. The debate about the difference between brain and mind dates back to Aristotle's time. Traditionally, scientists attempted to define the mind in terms of brain activity [7]. The classic argument states that the brain is the physical substance and the mind is the conscious output of those firing neurons. However, emerging evidence of mind and body suggests that the mind extends far beyond the physical functioning of the brain. By analyzing all of these factors, we can see that many people have already attempted to demonstrate that the mind and brain are not the same but are distinct. No one could find its exact location.

Know your Brain

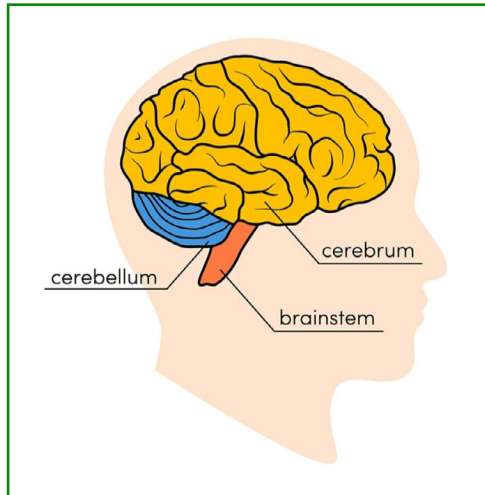
Brain is the most complex part of the human body. It is a three-pound organ. It is considered as the seat of intelligence, interpreter of the senses, initiator of body movement, and controller of behavior.



The folds on the outer part of the brain are known as gyri and the grooves are the sulci. Gyri is the foundation of intelligence. Maximum number of gyri signifies the more intelligent the person is. The brain hemisphere is divided into left and right hemispheres by the longitudinal fissure.

Brain can be divided into three regions.

- Cerebrum
- Cerebellum
- Brainstem

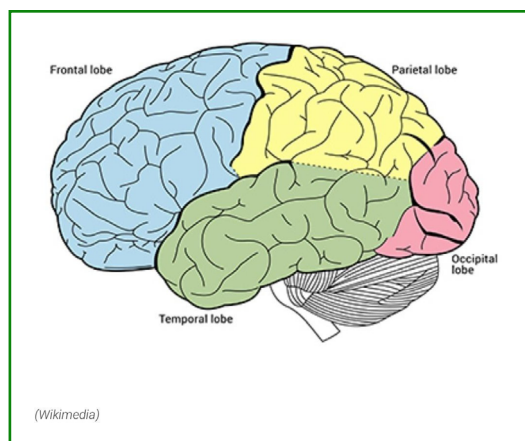


Cerebrum

Cerebrum is the largest part of the brain and it consists of white matter and grey matter. Cerebral cortex, Cortex is Latin for “bark,” and it describes the outer gray matter covering of the cerebrum. The cortex has a large surface area due to its folds and comprises about half of the brain’s weight. The cerebral hemisphere consists of five lobes: frontal, parietal, temporal, occipital, and limbic lobe.

Lobes of the Brain

- Frontal lobe
- Parietal lobe
- Temporal lobe
- Occipital lobe



Frontal Lobe: The frontal lobe is the most front part of the brain. The story of phineas Gage, the railway worker’s story is the most famous case of frontal lobe. It was happened in 1848, while Gage was using a tamping iron to pack in gunpowder for blasting a tunnel through rock. On that accident his head was slightly turned, a mistaken strike sparked an explosion that forced the rod upwards into his left eye and out through his skull.

Functions of temporal lobe involve:

- Memory
- Judgment
- Abstract thought
- Creativity
- Social appropriateness
- Motor tasks, which involve voluntary movement

Parietal Lobe: Your understanding of the world around you. It processes your sense of touch and assembles input from your other senses into a form you can use. Your parietal lobe also helps you understand where you are in relation to other things that your senses are picking up around you. Somatosensory cortex is in the parietal lob. That is responsible for the sense.

Functions of parietal lobe include:

- Localizing touch
- Integrating sensory information
- Visuospatial navigation
- Assessing numerical relationships
- Coordinating hand, arm, and eye motions
- Processing language.
- Coordinating attention.

Temporal Lobe: The temporal lobe is so named because of its proximity to the temples. The temporal lobe is not a standalone organ. It directly interacts with other regions of the brain, and sends and receives signals to and from the spinal cord, allowing it to communicate with the entire body. Thus damage to the temporal lobe can affect functioning in far-flung organs, and damage to organs completely unrelated to the temporal lobe may impede its ability to receive, process, and respond to various cues.

Functions of temporal lobe including:

- The formation of visual memories
- Interpreting the meaning of visual stimuli
- Production of speech
- Recognition of language
- Controlling unconscious
- Helping the body maintain homeostasis.

Occipital Lobe: Occipital lobe is the smallest and rear-most of the lobes, is the visual processing hub of your brain. This area processes visual signals and works cooperatively with many other brain areas. It plays a crucial role in language and reading, storing memories, recognizing familiar places and faces, and much more.

Functions including:

- Spatial
- Color processing
- Distance and depth perception
- Object and face recognition
- Memory information

This is the structure of brain and are the basics. By the first century A. D., Alexandrian anatomists such as Rufus of Ephesus had provided a general physical description of the

brain. The ancient Egyptians are responsible for the oldest written record using the word "brain" and have provided the first written accounts of the anatomy of the brain.

Mind

Rene Descartes is a philosopher. He pioneered the concept of dualism, a concept of dichotomy between the mind and body or mind and matter. Which has since challenged philosophers, physiologists, and psychologists. Philosophers were the first one to study about the mind, but much of philosophy of mind has moved into the realm of psychology. Cognitive psychologists and neuropsychologists, are interested in how brain states influence mental states. Many mental health professionals recognize the existence of layers of consciousness in the mind and are interested in learning more about its inner workings. Sigmund Freud and Carl Jung, concentrated on the unconscious mind and how it influences the conscious ego [8].

Rene Decarte Mind - Body Dualism

He reaches this conclusion by arguing that the nature of the mind (a thinking, non-extended thing) is fundamentally different from that of the body (an extended, non-thinking thing), and thus one can exist without the other. This argument gives rise to the well-known problem of mind-body causal interaction. In dualism, 'mind' is opposed to 'body', but different aspects of the mind have been the focus of attention at various points in time [9]. In the classical and mediaeval periods, the intellect was thought to be the most obviously resistant to a materialistic account: from Descartes onward, the main stumbling block to materialist monism was supposed to be 'consciousness', of which phenomenal consciousness or sensation came to be considered.

Plato's *Phaedo* provides the foundation for the classical emphasis. Plato believed that true substances are eternal Forms rather than ephemeral physical bodies. These Forms not only make the world possible, but also intelligible, because they serve as universals, or 'concepts', as Frege defined them. Their relationship with intelligibility is important to the philosophy of mind. Forms are the foundations of intelligibility, so they are what the intellect must grasp in the process of understanding. In *Phaedo*, Plato presents a variety of arguments for the immortality of the soul, but the one that is relevant for our purposes is that the intellect is immaterial because Forms are immaterial and intellect must have an affinity with the Forms it apprehends.

Tichner and Mind

Titchener's theory began by asking what each element of the mind is. Based on his research, he concluded that conscious experience is made up of three types of mental elements:

sensations (perceptions), images (ideas), and affections (emotions). These elements could be broken down into their respective properties, which he identified as quality, intensity, duration, clarity, and extensity. Both sensations and images possessed all of these characteristics; however, affections lacked both clarity and extensity. Images and affections could also be broken down into simple sensation clusters [10].

Location of Mind

The mind is a unified whole which constitutes the center of our awareness. Thus, consciousness is the center of wholeness. The mind is a non-observable entity which we cannot measure with materialistic tests. The consciousness is measured by various techniques such as brain imaging techniques such as fMRI and EEG. Also, to measure cognition we will analyze neuropsychological domains. Like that we use various assessments to look at these things in a measurement form. But remember, that all these things are the components of a non-observable part of our own body system. Mind is located at the center of our eyebrows. Dhyana is an ancient meditation technique which is used for awareness. This old method is used for achieving consciousness according to patanjali. Thus, the answer for the location of mind is evident from ancient eras itself. But the concept that the brain is the mind deviates the part in different ways. Also neuroscientists believed that consciousness is the cerebral cortex as the seat of consciousness.

Discussion

The present paper forwards the most debating topics in the history of psychology. Psychological Science was a part of philosophy and physiology. But later of the contribution of prominent person in psychology William Wundt the psychological laboratory to the study of human mind and behavior changed the field from arts to the science. Psychological studies dipped into the root of scientific findings in the laboratory where researchers measure all the aspects of humanistic nature. But the field still didn't grown completely and not getting enough respect still in the 21st century. The main reason behind this is people are not aware about the science behind human behavior. No one gives priorities to their mental health as they consider their physical health. Even the professionals are still confused about many aspects of psychology. It's being more than 100 years since psychology came into history. From that day itself enquiries of "Mind" started. It's still in debate.

Many psychologists and physiologists tried to put forward the concept of mind and it's nature. On that part, schools of thought emerged. But yet, no one could answer the location of mind. In this study, researchers tried to display its location

clearly. It is located at the center of our eyebrows. It is known as ajna chakra or third eye chakra. It is known for consciousness, alert and aware. It could be said as physiology. There is no scientific evidence for the existence of chakras in the spiritual sense. However, some scientists argue that they correspond to physical body parts, particularly those in the nervous system. The nervous system is made up of a person's brain and spinal column, which both contain nerves. These nerves branch out from the spine in bundles (plexuses) and connect to other parts of the body. For example, a 2017 cadaver study Trusted Source discovered that the root chakra may be linked to the inferior hypogastric plexus, which sends signals to the reproductive organs and rectum, two of the functions that this chakra is intended to influence. It requires additional research.

Conclusion

Since, the topic selected by the researcher, the location of mind has been the topic for discussion and debate yet in the 22nd century. Acharya Charaka the father of Indian medicine defined Chikitsa for psychological diseases as Jnana (spiritual knowledge), Vidnyan (scriptural knowledge), Dhairya (non-elevation of the mind), Smriti (recollection of experienced thoughts), and Samadhi (concentration of the mind into a self by detaching it from the senses). In ayurveda, medha is refers to the power of brain which helps mind to function properly. Through my research, this medha is identified as the energy comes from the ajna chakra of the human body. Mind is located at ajna chakra. More research is needed to identify the actual physiology of ajna chakra.

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