

Assignment2

CGS601

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Ques: Write a short essay on the evolution of the problem statement of cognitive psychology research in under 750 words.

The area of interest of cognitive psychology that we study today was not always the same. The idea has evolved over centuries and marks contributions from numerous philosophers, physiologists and psychologists.

It is considered that philosophy and physiology gave rise to psychology. In early times psychology was related to the study of soul . It was in no way related to study of some part inside the body, and it was Hippocrates who related the field of psychology to the body. Another famous philosopher, Plato related mind and body but considered them two different entities. Aristotle believed that the mind and the body are the same things, and mind can be studied by studying the body.

Now moving to more recent times, philosopher R Descartes also believed that mind and the body are different entities, but they interact through the pineal gland and introspection is a better method to study as our senses can be fooled and thus our observation. John Locke proposed that mind and body are two interdependent aspects of the same phenomenon where senses provides the information to the mind and mind processes the data to have sensory experience. He was an empiricist, and everything is learned through experiences. I. Kant believed that humans have different faculties that work together and link the body and the mind.

It has been established that mind and body may be the same, but they interact in some manner. The above-mentioned different beliefs lead to the

formation of different school of thought of psychology and these all school of thought lead to the modern form of cognitive psychology.

Structuralism was one of the foremost schools of thought that focused on introspection and reaction times to create a map of human consciousness and break it down into small components. Some rejected this because these facts were not scientifically provable as it describes one's own beliefs. The second important school of thought was *Functionalism*, founded by William James, who is also sometimes considered *the father of psychology*. This approach added the question of why the mind works in a certain way in addition to taking into consideration whatever methods are available to answer those questions, which ultimately led to pragmatism in today's psychology. Another school of thought was Association which examines how different elements of mind become associated with each other to result in a form of learning.

Behaviorism is another school of thought which has a significant effect on psychology. The idea was to see the response of the physical to the mental. It tries to find the relation between observable behavior and environmental stimuli. Classical Conditioning of a dog for his food with the bell is a famous example of pairing two unrelated stimuli. John B. Watson proposed that psychologists should only study observable behavior as it is not possible to study the mind objectively or consider the mind as a black box and focus only on the stimulus-response relationship. B.F. Skinner used reinforcements and punishments to modify behavior and gave very interesting theories about the modification of behavior. Some argued that it is necessary to study the internals and study a phenomenon as a whole which will provide a better perspective than breaking them into small components.

It was then realized that studying mental processes is essential, and *the cognitivism* notion said that psychologists should develop methods to study them. Earlier in time, all schools of thought considered the brain a passive organ, but now this view was challenged by many psychologists. Karl Lashley concluded that memory is not localized and is distributed in the

brain. Psychobiological explanations were provided for some phenomena which also challenged the view of the passive brain. Donald Hebb proposed the concept of cell assemblies as the basis of learning, and not all behavior is learned by reinforcements and punishments. They are developed over time as the ability to fire a neuron in connected increases. Noam Chomsky heavily criticized the idea of Skinner (behaviorist) and gave strong arguments in support of the dynamic nature of the brain. Edward provided rat experiments to extend this view further. More intricate technologies were coming in, which led to discussions that will machines will be able to provide more helpful information, or maybe they can mimic intelligent human behavior. New era of technology was coming in and they provided very different ways to study human behavior. Newell and Herbert provided detailed models of human thinking and problem-solving. Neisser's book played a significant role in shaping the minds of the young generation at that time.

It was during this time, cognitive psychology was developed as an individual and distinct field in psychology.