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## Introduction

This paper provides an overview of descriptive theories that have advanced in over the last decade concerning the working of the human memory and how it affects the adult behavior and experiences. The purpose of this literature review is anchoring an understanding of different attempts to come up with one comprehensive understanding of psychology and the developing of the human brain. While exploring the different facets of the concept of human behavior, the paper embarks on different scholastic analysis using divergent resources. Contemporary literature on this subject assesses the role of diversity and its impact on human competency and morale. However, while emphasizing the vital place of effective research on human memory, the literature admits that there is no conventional study that can guarantee perfection. However, scholars of psychology admit that there are vital components of human behavior that transcends across all generations.

Daniel Siegal (2012) writes that the Mind is rarely defined in fields that focus on mental experience. In his book, Siegal explores how recent findings in science have exposed a different understanding of the developing mind. His study is paramount for research focusing on childhood experience. He asserts that childhood experiences affect the perception of reality and the maturity of their cognitive ability. Siegal argues that while science explains the science functions, by providing an in-depth but distinct perspective on human experience, anthropology gives insights on how relational experiences and communication patterns within different groups affect the development of human brain (p. 2). Siegal defines the human mind as “ a core aspect of the mind that is an embodied and relational process that regulates the flow of energy and information (p. 6). In his understanding, the mind is an emergent property of the body and its relationships is created within internal neurophysiologic process and relational experiences. The structure and function of the developing brain are determined by how experiences, especially within interpersonal relationships, shape the genetically programmed maturation of the nervous system.

Siegal continues to argue that the mind, brain and relationships are not three separate elements. Instead, he argues, “ they are three aspects of one reality (p. 7). This consensus accrues from the fact that they all lead to the conclusion of the power of energy, information flow and experiences. The power of energy flow together forms the brain, which controls the working of the complete neuron-system. The recursive, reentry property of the mind, typical of self organizing emergent process, means that the relationships and brains shape the mind, and the mind shape relationships and the brain (p. 7)

Several theories have been put across to explain how the short memory works. Peterson & Peterson (1959) of America’s Indiana University debated the origin of forgetting pertaining to short-term memory. The researchers questioned if forgetting in the short run accrued from decay or interference with information flow. According to their inference, the short-term lifespan of information is 20 seconds, and if this lapses then the information decays and thus forgetfulness comes (Baddeley, 1997, p. 32).

## The Working of the Human Brain (Long Term Memory and Short term Memory).

According to several scholars, the small capacity of the short-term memory is a function of the evolutionary survival strategy of paying attention only to critical things (Baddeley, 1997). Still, Baddeley (1997) agrees that a process called chunking can increase the capacity of the short-term memory. Chunking refers to the organization of materials into distinct smaller groups for effective management (p. 30). In human memory, encoding refers to the process that allows for the presupposed items of interest to be converted into a creation that can be saved within the brain and recalled later from the short-term memory. Conrad (1964) concluded that encoding in the STM is based on acoustic.

This means that sounds play s a significant role in encoding in the short-term memory. Brandimonte et al (1992) affirmed that stimuli recording in the short-term memory during learning interfere with the ability to generate veridical mental images for the long-term memory. Baine (1986) reports that encoding is believed to proceed from one end of the continuum where processing is shallow, and stimulus is less active to a deeper end in terms of activity of the stimulus and processing activity. Encoding could be understood adequately in terms of encoding alone and must be judged based on how the encoding matches with subsequent retrieval demand.
The long-term memory is intended for the storage of information for a long period. The long-term memory stores information indefinitely. Scholars agree that forgetting could be a function of the piling up of information hence making it difficult for the accessing or retrieving of the information. The idea of forgetting can thus be an illusion. According to Mastin (2010), short-term memories can qualify to become long-term memory through the process of consolidation. While the short-term memory relies on sound and association to retrieve information, long term memory retrieves information on the meaning and association. Long-term memory has limitless capacity. The long-term memory stores a large amount of information kept on diverse issues such as personal memories, general knowledge, plans, and areas of expertise. The long-term memory also has the capacity to revive and modify information. This is possible because of LTM’s level of sophistication in terms of capacity, duration, and encoding. The LTM capability to function better than the STM accrues from the flexibility of the brain and the limitless absorption of the brain.

Miller (1956), came up with the theory of the “ magic number seven,” the theory argues that short-term memory is limited to a specified number of chunks of information. For the LTM memory, Miller argued that while long-term memory has a limitless store. Atkinson and Shiffrin (1968), argued for the dual-store memory, which resides in the short-term for a limited time while strengthening associations in long-term memory. Information presented to the memory enters through the short-term memory. However, due to the limited space, old information creates space for the new information. When information is revitalized in the short-term memory, the long-term memory strengthens the same information in the storage.

Forgetting is the opposite of memory. In the long-term memory, forgetting occurs when information decays and fails to reach the LTM. However, sometimes information reaches the LTM, but it disappears before it is stored in the LTM. Sometime forgetting occurs when information is not used for a long period. This means that the brain is psychologically prepared to erase information that is not usable. However, forgetting does not mean that information is entirely out of the store. Forgetting can also be caused by distractions caused by the environment or the errors such as association such believing that information that is absent is available. Other scholars have argued that forgetting can also be intentional. This means that an individual can insinuate forgetting to erase the feelings or the events.

Brown and Kulik (1977) explored the flashbulb memories. This theory suggests that dramatic events can imprint powerful images in people’s memories. Brown and Bulk argued that flashbulb theories was instrumental in investigating the murder of J. F Kennedy by suggesting that human memory do not forget dramatic events. Flashbulb theory presents the argument that human memory is a highly detailed snapshot of moments and circumstances. Flashbulb memories allow individuals to remember finer details events and are resistant to forgetting.

However, because flashbulb do not document like real cameras, there is a possibility that information could be impaired. According to Brown and Kulik, flashbulb memories are distinct from ordinary memories for details held and method of storage since they use emotional aspects to store information. Another emotional memory component was suggested by Feud (1961). This is called repression theory that argues that emotionally threatening materials can be kept from consciousness by motivated forgetfulness. Scholars agree that trauma can cause problems of memory. Still, scholars fail to agree if repression can be a cure for trauma. In his research, Feud believed that repression was caused by hypnotic states in life. Repressed memory has been used widely for people undergoing therapeutic treatments from traumatic experiences.

Usually, when we think of memory, we think of the long-term memory without considering the importance of the short-term memory in the existence of the long-term memory. There is the need to realize that the long-term memory cannot function without the presence of short term and long-term memory. In the paper, we have discussed different forms of memories while highlighting the fundamental theories that shape the workings of memories and how they relate to one another. All, this paper has attempted to explore the working of human memory using different research works.

## Child Hood Experience, Success in School and Adult Life

In the best selling Mind at a Time, Mel Levine reports that children’s learning is complex and varying depending on the nature of their brain. By using his abundance experience at the Children’s Hospital, and as an educator, Levine writes a book that targets a larger audience on children is learning strategies. The book uses the concept of objective observation that allows the children and parents to tell their stories. In addition to using observation, the book also employs a wide range of research available from writings of many people such as Howard’s concept of emotional intelligence, and many other conventional scholars. Levine describes the workings of the human brain, which he exploits to find a way of helping students learn better. In my view, the book accomplishes the original goal of providing a reroute for analyzing the mind development (p. 15).

Contrary’s to Goleman’s emotional intelligence, Levine premises his work on the argument that human minds are not the same. He asserts that the preposition that human minds are equal should not be tolerated. The assumption of equality makes adults put undeserving pressure on the children to perform even when it is beyond their intellectual capability. In the p. 23 of the Mind at a Time, Levine writes, “ it is taken for a granted in adult society that we cannot all be generalists skilled in every area of learning and mastery.” While the general society accepts this fact, we have refused to accept that our kids learning also follow the same route (p. 23). He argues that while some students face difficulties in school, the challenges are not tantamount to disabilities or learning deficiencies. Instead, he acknowledges that learners possess differences that are numerous than their similarities. Helping students require that we exploit mechanisms that are preemptive and combative. Labeling students with terms like “ learning disables” or ADH victim is undermining and restrictive to the child’s development. A comprehensive analysis of the child’s problems and a detailed description of the child challenge offer a better way of helping the child go through the obstacle, as opposed to the easy labels.

The book also explores the concept of “ neurodevelopment systems”. The neuro developments systems are comprised of about eight smaller systems. These systems are highly dependent on one another. The strength of each system plays a critical role in and out of the school for the children (p. 30). Usually, when we think of memory, we think of the long-term memory without considering the importance of the short-term memory in the existence of the long-term memory. There is the need to realize that the long-term memory cannot function without the presence of short term and long-term memory. In the book, Levine discusses the different forms of memories while highlighting the fundamental theories that shape the workings of memories and how they relate to one another. In addition to highlighting the workings of the human memory, Levine argues that determining the children’s strengths requires that we understand the workings of the brain by giving children tasks that give a better understanding of their strengths and weakness. In chapter ten and eleven focuses the concept of management by profile system. Levine describes this system as a “ logical and systematic approach to education care of kids” (p. 277). The profile highlights some of the acute problems that students face and documents some ways getting their positives even from the problems that they face. According to Levine, there are six points where learning challenges. These six aspects require evaluation and analysis, they include, trouble-mastering skills, the acquisition of facts of knowledge, the concept of understanding, the systematic approach to facts, and the ways of handling the numbers and rates of demands. While using this concept, educators must realize that educational needs of the child of the children vary.

A child with strong mental energy and excellent language skills differs from the child with an attention challenge and organizational deficiency.

Chapter 12 documents ways in which parents can play a critical role in developing their children cognitive growth. According to Levine, parents can assist children learn by knowing their children and helping them develop their strengths. Levine argues that helping children requires that society tolerate that there are people with different minds. He argues that lot more focus should be bestowed on enhancing the concept differential learning that employs different strategies for different children. This method allows children to have a choice of what works best for them. In general, I think that Levine does a remarkable job and accomplishes his goal of developing a new strategy that helps children understand and help children become successful. This is an indispensable book for everyone working with children.

Contemporarily, there has been burgeoning of interest in natural studies of cognition. Some scholars have argued for emphasizing the continuity of linking memory and other aspects of cognition. I think that Levine provides a middle ground that does capture even thinking of nonprofessionals.

## Learning Disability and ADHD

Having explored the working of human brain, let us focus on the children with special needs and how this affects the development as adults. This provides a delve into the lives of the segments of the society that continues to suffer from neglect. ADHD is an acronym for Attention Deficit Hyperactivity Disorder. It can also be abbreviated as ADD, which is a short for Attention Deficit Disorder. ADHD is a psychological problem of paying attention, which affects both children and adults. The condition limits one’s ability to pay attention to complex tasks in life that require organization, planning and a lengthy and detailed focus. Understanding ADHD is challenging since childhood is often marked with a varying degree of losing attention. However, once one learns that his or her child has this condition, then it is possible to solve the problem by developing the child’s ability to pay attention (American Psychiatric Association 2012).

If unidentified at childhood, ADHD can persist across the lifespan of an individual, impairing an adult’s ability to perform executive functions. At adulthood, ADHD is invisible in patients that have diagnosed with psychiatric disorders, but it is frequent for adults suffering from anxiety or substance abuse problems. Distinctively, none of the symptoms of Attention deficit disorder is abnormal. It is normal for children to be unfocussed, scattered and distracted. Moreover, ADD symptoms may be easily confused with disorder such as learning disabilities, and emotional challenges. DSM-IV is am instrumental tool for accurate determination of ADHD.

The identification and analysis of children suffering from ADHD is a systematic process. Still, there is no agreed model of testing ADHD and many other challenges like depression, anxiety and other learning disabilities. The American Psychiatric Association’s applies DSM-IV-TR to help in diagnosing ADH amongst young children. However, there should be a common standard of measuring ADH using the same standard across communities to determine the prevalence and the impact of ADHD on young children. In conclusion, despite the ongoing debate on whether the extension of the age bracket would be helpful for the study of ADHD, many agree that the extension of the age of testing criterion would be a harmless endeavor. Polanczyk et al (2010) study found out that children with ADHD symptoms ages of seven and twelve and differed with those before age seven four times out of the twenty-one measures that were investigated. A retest pointed out only one differences. Evidently, according to this research, an increase in the age bracket of measurements increases life span of study with exceedingly little changes to the overall outcome but with a more valid and on-point study analysis.

## Conclusion

In conclusion, this literature review has explored the working of the human brain; focus has been on how it is synonymous with the success of people as adults. The paper as not explained the theory behind the brain but also the relationships of the brain with children’s learning’s. In adulthood, majority of our lives get determined with our childhood experiences. This is the reason the paper champions for a diversity in the study of human brain in relations to the successful adult behavior. Our primary job in the field of psychology is to formulate working mechanism that support and address the concerns of millions of people in the world.

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