Types of Memory

IEMT Application to Memory

The structure of the different IEMT processes is designed to apply effect upon the different types of memory. Whilst this is often nominalised to simply “the recall of an event” the processes are structured specifically to change the qualities of episodic, autobiographical, and somatic memory types.

This is achieved by the kinaesthetic pattern (episodic memory), pronoun work (autobiographical), and PSAC's work (somatic memory).

Neurology

Several brain structures are known to be involved in memory, including the hippocampus, the amygdala, and the prefrontal cortex.

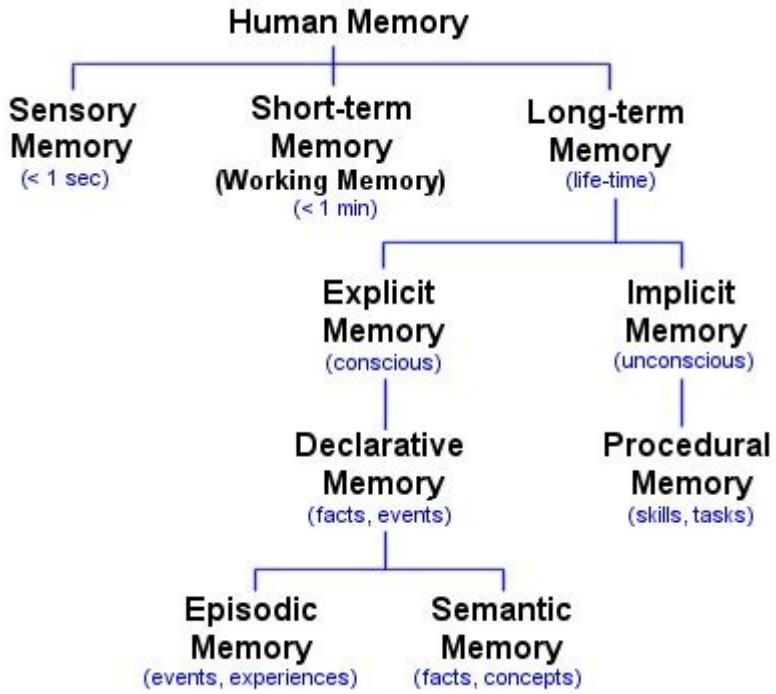
The hippocampus is a small, seahorse-shaped structure located in the medial temporal lobe of the brain. It is widely regarded as being critically important for the formation of new memories, particularly memories of events (known as episodic memories). Damage to the hippocampus can result in an inability to form new memories, a condition known as amnesia.

The amygdala is a small, almond-shaped structure located in the temporal lobe of the brain. It is involved in the processing of emotions and is thought to play a role in the consolidation of memories of emotionally charged events.

The prefrontal cortex is a region of the brain located at the front of the frontal lobes. It is involved in a wide range of higher cognitive functions, including planning, decision-making, and the regulation of attention and behavior. The prefrontal cortex is also thought to play a role in the retrieval of memories from long-term storage.

These brain structures are connected to each other and to other brain regions through networks of neurons, and they work together to enable the various processes of memory. However, it is important to note that memory is a complex and distributed process that involves the interaction of many different brain regions and systems.

In psychology there are three main types of memory[1] : sensory memory, short-term memory, and long-term memory.



1. Sensory memory is the shortest-term memory and is the first stage of memory. It stores sensory information for a very brief period of time, usually just a few seconds. For example, if you see a flash of lightning, the image of the lightning is stored in your sensory memory for a few seconds before it is either forgotten or transferred to short-term memory.

2. Short-term memory, also known as working memory, is the next stage of memory. It can hold a small amount of information for a short period of time, usually around 15 to 30 seconds. This type of memory is used when you are actively thinking about or working on a task. For example, if you are trying to remember a phone number someone has just told you, you would be using your short-term memory.

3. Long-term memory is the final stage of memory and has an almost unlimited capacity. It can store large amounts of information for long periods of time, sometimes even a lifetime. There are two main types of long-term memory: explicit and implicit. Explicit memory is conscious and intentional, like when you actively try to remember a list of grocery items. Implicit memory is unconscious and unintentional, like when you learn how to ride a bike and it becomes second nature.

Overall, the three types of memory work together to help us process and retain information. Sensory memory captures the raw information from our senses, short-term memory holds onto it for a short period of time while we work with it, and long-term memory stores it for future use.

Explicit and Implicit Memory

Explicit memory[2)] and implicit memory[3)] are both types of long-term memory, but they differ in how the information is stored and retrieved.

Explicit memory, also known as *declarative memory*, refers to memories that are consciously controlled and can be explicitly verbalized or written down. It includes memories of facts, events, and experiences that can be intentionally brought to mind, such as the name of the capital of a particular

country or the details of a friend's birthday party.

Implicit memory, on the other hand, refers to memories that are not consciously controlled and cannot be easily verbalized or written down. It includes skills, habits, and procedures that are learned and performed automatically, such as riding a bike or tying shoelaces.

Here are some examples to illustrate the differences between explicit and implicit memory:

- If you are asked to list the names of all the U.S. presidents in order, you would be using your explicit memory. You would consciously try to recall the information and then explicitly state the names.
- If you are asked to demonstrate how to brush your teeth, you would be using your implicit memory. You would not have to consciously think about the steps, you would just automatically perform the task without having to explicitly verbalize the steps.
- If you see a list of words and then are asked to write down as many as you can remember, you would be using your explicit memory. You would consciously try to recall the words and then explicitly write them down.
- If you learn a new word and then are asked to use it in a sentence, you would be using your implicit memory. You would not have to consciously think about the definition of the word, you would just automatically use it in the sentence without having to explicitly verbalize the definition.

Episodic Memory

Episodic memory[4)] is a type of long-term memory that involves the ability to remember specific events or experiences from one's personal past. It is called episodic because it involves memories of events that are “episodes” or occurrences in a person's life.

Episodic memory is thought to be closely related to the concept of autobiographical memory, which involves the ability to remember specific events or experiences that have happened to you personally. Episodic memories are often triggered by cues or context, such as the place where the event took place or the people who were present.

For example, if you remember your first day of high school, the details of the event (such as what you wore, who you met, and what you did) would be stored in your episodic memory. Episodic memories can include both positive and negative events, and they can range from significant life events to mundane everyday occurrences.

Episodic memory is important because it allows us to remember and reflect on our personal past experiences, which helps us to understand ourselves and our place in the world. It is one of the three main types of long-term memory, along with semantic memory (memory for facts and general knowledge) and procedural memory (memory for skills and habits).

Semantic memory

Semantic memory[5)] is a type of long-term memory that involves the ability to remember and

understand general knowledge and facts. It is called semantic because it involves the meaning of words and concepts, rather than specific experiences or events.

Semantic memory is different from episodic memory, which involves the ability to remember specific events or experiences from one's personal past. While episodic memory is tied to a particular time and place, semantic memory is not tied to any specific context or experience.

Examples of information stored in semantic memory include:

- General knowledge facts, such as the capital of a country or the definition of a word
- The meanings of words and concepts
- Common cultural norms and customs

Semantic memory is important because it allows us to understand and communicate with others by providing a shared basis of knowledge and meaning. It is one of the three main types of long-term memory, along with episodic memory (memory for specific events and experiences) and procedural memory (memory for skills and habits).

Autobiographical Memory

Autobiographical memory[6)] is the memory of specific events and experiences from a person's life. It is a type of long-term memory that involves the ability to remember and recount personal past experiences, such as birthdays, holidays, and other significant life events.

Autobiographical memory is closely related to episodic memory, which involves the ability to remember specific events or experiences from one's personal past. However, while episodic memory is focused on the details of the event itself, autobiographical memory also includes the context and meaning of the event in the person's life.

For example, if you remember your first day of high school, your episodic memory would include the details of the event (such as what you wore, who you met, and what you did), while your autobiographical memory would also include the context of the event (such as why you were starting high school and how you felt about it).

Autobiographical memory is important because it allows us to reflect on and make sense of our personal past experiences. It is an important aspect of self-identity and helps us to understand our place in the world. It is also closely related to social and cultural identity, as our personal past experiences are often shaped by and intertwined with the social and cultural context in which we live.

Spatial Memory

Spatial memory[7)] is a type of memory that involves the ability to remember and navigate through physical space. It is the type of memory that allows us to remember the layout of a familiar place, such as our home or school, and to find our way around a new environment.

Spatial memory is thought to be processed in a specific part of the brain called the hippocampus, which is involved in memory and navigation. It is closely related to other types of memory, such as episodic memory (memory for specific events and experiences) and procedural memory (memory for

skills and habits).

Examples of tasks that involve spatial memory include:

- Remembering the layout of a familiar building and finding your way to a specific location within the building
- Remembering the route to a friend's house and being able to give directions to someone else
- Playing a video game and remembering the layout of the game environment

Spatial memory is important for navigation and for carrying out daily activities. It allows us to remember the location of objects and to navigate through familiar and unfamiliar environments with ease.

Muscle Memory

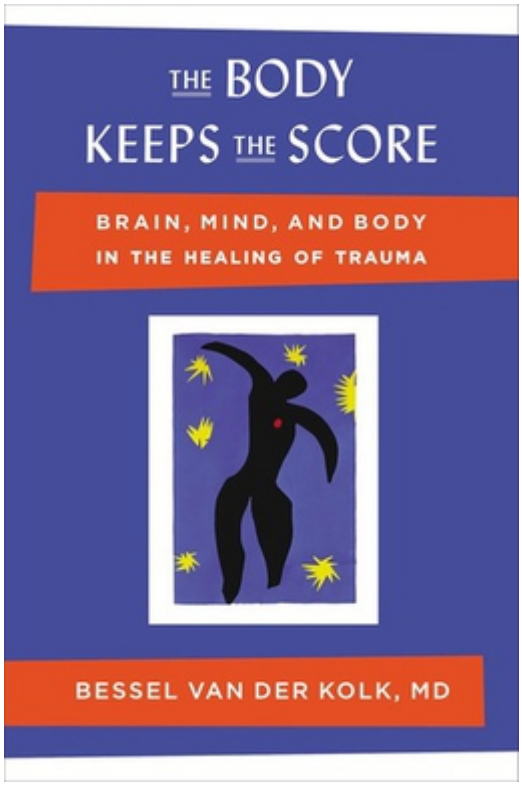
“Body” or “muscle memory” is a generic lay-term used to describe the process of learning a physical skill or movement through repetition, so that the movement becomes automatic and does not require conscious thought. When a movement is learned and stored in muscle memory, it can be performed smoothly and efficiently, even if the person has not practiced the movement in a long time.

An example of body or muscle memory is learning how to play a musical instrument. When a musician first starts to learn a new piece, they may have to think about each note and movement. But as they practice and repeat the piece, their muscles become accustomed to the movements and they can perform the piece without having to consciously think about each step. This is because the movements have been stored in their muscle memory.

Other examples of activities that involve muscle memory include sports, dancing, and typing. In these activities, the movements and skills are learned through repetition and practice, and are eventually stored in the muscle memory, allowing the person to perform them smoothly and efficiently without having to consciously think about each step.

It is important to note that this concept of somatic memory is not widely accepted within the scientific community and is not a well-defined or well-studied phenomenon. Some researchers believe that body or muscle memory may exist, while others argue that all memories are stored in the brain and that the concept of somatic memory is not scientifically valid.

The Body Keeps The Score



The phrase “the body keeps the score”[8] was popularized by Dr. Bessel van der Kolk[9] , a psychiatrist and trauma expert, in his book “The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma.”(Bessel van der Kolk, M.D., 2014) The book, which was published in 2014, explores the effects of trauma on the body and mind and discusses various treatments for trauma, including traditional talk therapy, body-oriented therapies, and medication.

In “The Body Keeps the Score,” Dr. van der Kolk argues that traditional talk therapy alone is often not sufficient for treating trauma, and that it is important to also address the physical and emotional responses of the body. He presents a holistic approach to trauma treatment that includes both talk therapy and body-oriented therapies such as yoga, meditation, and physical exercise.

The book has been widely praised for its insights into the effects of trauma on the body and mind, and has helped to bring greater awareness to the importance of addressing and treating trauma in a holistic way. It has become a influential resource for mental health professionals and trauma survivors alike.

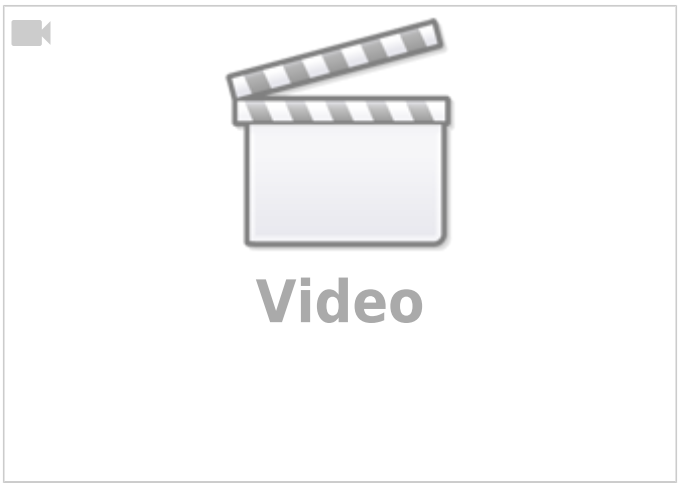
“The body keeps the score” is a phrase that refers to the idea that physical and emotional trauma can have long-lasting effects on the body and mind. It suggests that the body remembers and responds to traumatic events even after the mind has forgotten or tried to move on from the experience.

The phrase is often used in the context of post-traumatic stress disorder (PTSD) and other mental health conditions that can be triggered by traumatic events. It is based on the idea that the body has its own way of coping with and responding to trauma, and that these responses can persist long after the traumatic event has passed.

For example, a person who has experienced a car accident may have flashbacks, anxiety, or physical symptoms such as rapid heartbeat or sweating when they get into a car, even if they do not consciously remember the accident. These physical and emotional responses are thought to be the result of the body's memory of the traumatic event.

The concept of “the body keeps the score” highlights the importance of addressing and treating the physical and emotional effects of trauma in order to heal and move forward. It suggests that it is not enough to simply “move on” from a traumatic event, but rather that it is important to address and

work through the physical and emotional responses that the body has to the trauma.



Please refer also to Peter Levines Somatic Experiencing.

Louise L. Hay

"You Can Heal Your Life"(Louise L. Hay, 1984) is a self-help book written by Louise L. Hay[10], an American motivational speaker and author. The book, which was first published in 1984, has become a classic in the self-help genre and has sold millions of copies worldwide.

In "You Can Heal Your Life," Louise L. Hay presents a holistic approach to healing that focuses on the connection between the mind and body. She argues that negative thoughts and beliefs can manifest as physical symptoms and diseases, and that by changing our thoughts and beliefs, we can heal our bodies and improve our overall well-being.

The book includes chapters on various physical and emotional issues, such as cancer, addiction, and relationships, and offers suggestions for affirmations and visualization exercises that the reader can use to improve their health and well-being. It has often been praised for its positive message and its emphasis on the power of the mind to heal the body.

The core ideas of the book include:

- **The power of affirmations**: Hay believes that using positive affirmations can help to change limiting beliefs and reprogram our mind to think more positively.
- **The mind-body connection**: Hay asserts that our thoughts and emotions can directly impact our physical health, and that healing the mind can lead to healing the body.
- **Responsibility for our own lives**: Hay encourages readers to take responsibility for their own lives and to stop blaming external circumstances or other people for their problems.
- **The connection between past experiences and present circumstances**: Hay believes that past traumas and negative experiences can affect our present-day thoughts and emotions, and that it's important to address these experiences in order to heal and move forward.

However, "You Can Heal Your Life" has also received criticism since its publication in 1984. Some of the criticisms of the book include:

- **Lack of scientific evidence**: Some critics have argued that the ideas presented in the book are not based on scientific evidence and may not be effective in healing physical and emotional issues.
- **Simplistic approach**: Some critics have argued that the book oversimplifies the causes and solutions for physical and emotional issues, and that it does not take into account the complexity of these issues.
- **Misuse of affirmations**: Some critics have raised concerns about the use of affirmations in the book, arguing that they may not be effective in changing negative beliefs and that they may even be harmful if used incorrectly.
- **Overgeneralization**: Some critics have argued that the book's ideas and techniques may not be applicable to everyone and that it oversimplifies the experiences and needs of individuals.

Freud and Repression

Sigmund Freud, the founder of psychoanalysis, believed that memories, particularly memories of traumatic events or experiences, can be repressed, or pushed out of conscious awareness. He believed that these repressed memories could have a powerful influence on an individual's thoughts, feelings, and behaviours and that they could be a key factor in the development of psychological disorders.

Freud also believed that the process of bringing these repressed memories to conscious awareness through therapy, a process he called “abreaction,” could be therapeutic. He believed that by forcing an individual to confront and work through these difficult memories, it could help to resolve conflicts and reduce the influence of these memories on the individual's current thoughts and behaviors.

Freud's views on memory and therapy have been influential, but they have also been the subject of much criticism and debate. Many of his theories and ideas have been revised or rejected by more recent theories and research in psychology.

[1)] Memory,Sensory memory,Short-term memory,Long-term memory,Multi-store model,Working memory Wikipedia
[2)] Explicit memoryWikipedia
[3)] Implicit memoryWikipedia
[4)] Episodic memoryWikipedia
[5)] Semantic memoryWikipedia
[6)] Autobiographical memoryWikipedia
[7)] Spatial memoryWikipedia
[8)] The Body Keeps the ScoreWikipedia
[9)] Bessel van der KolkWikipedia
[10)] Louise HayWikipedia

1. ^ Bessel van der Kolk, M.D., 2014. *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma.* Viking Press, ISBN 978-0-670-78593-3.
2. ^ Louise L. Hay, 1984. *You Can Heal Your Life.* Hay House, ISBN 0937611018.