

Reference Guide for Types of Memory

Human beings are created with capacity for both explicit and implicit memory. Most commonly understood is the explicit episodic memory, which is our conscious awareness responsible for recalling autobiographical events. This part of the brain develops at around 3 to 4 years of age.

However, God's fearful and wonderful design includes the capacity for fast implicit memory, the unconscious mechanisms by which we ensure survival and optimize brain functioning for efficiency. Babies are born with the instinctive survival center of the brain, responsible for basic survival functions such as breathing, heartbeat and reflexes, and around 9 months old, the limbic system develops, the part of the brain responsible for processing emotions and attachment. This includes the fear center of the brain (amygdala) that detects danger quicker than our conscious awareness and helps us react fast. Then it stores implicit memories of stimuli and associated emotions so that we can protect ourselves by quickly recognizing and avoiding similar events in the future. This means babies, before they have words or conscious memory recall, are encoding and implicitly "remembering" emotional and relational reactions to life stimuli, mostly through non-verbal cues.

Understanding how God wired the human brain is helpful and necessary for caring for people lovingly and wisely. It helps us appreciate more deeply how past experiences affect people and have greater compassion when implicit memories trigger victims of trauma, instead of thinking they are being over-reactive, hyper-sensitive and emotional. It can also inform what and how we ask relevant questions to know people well.

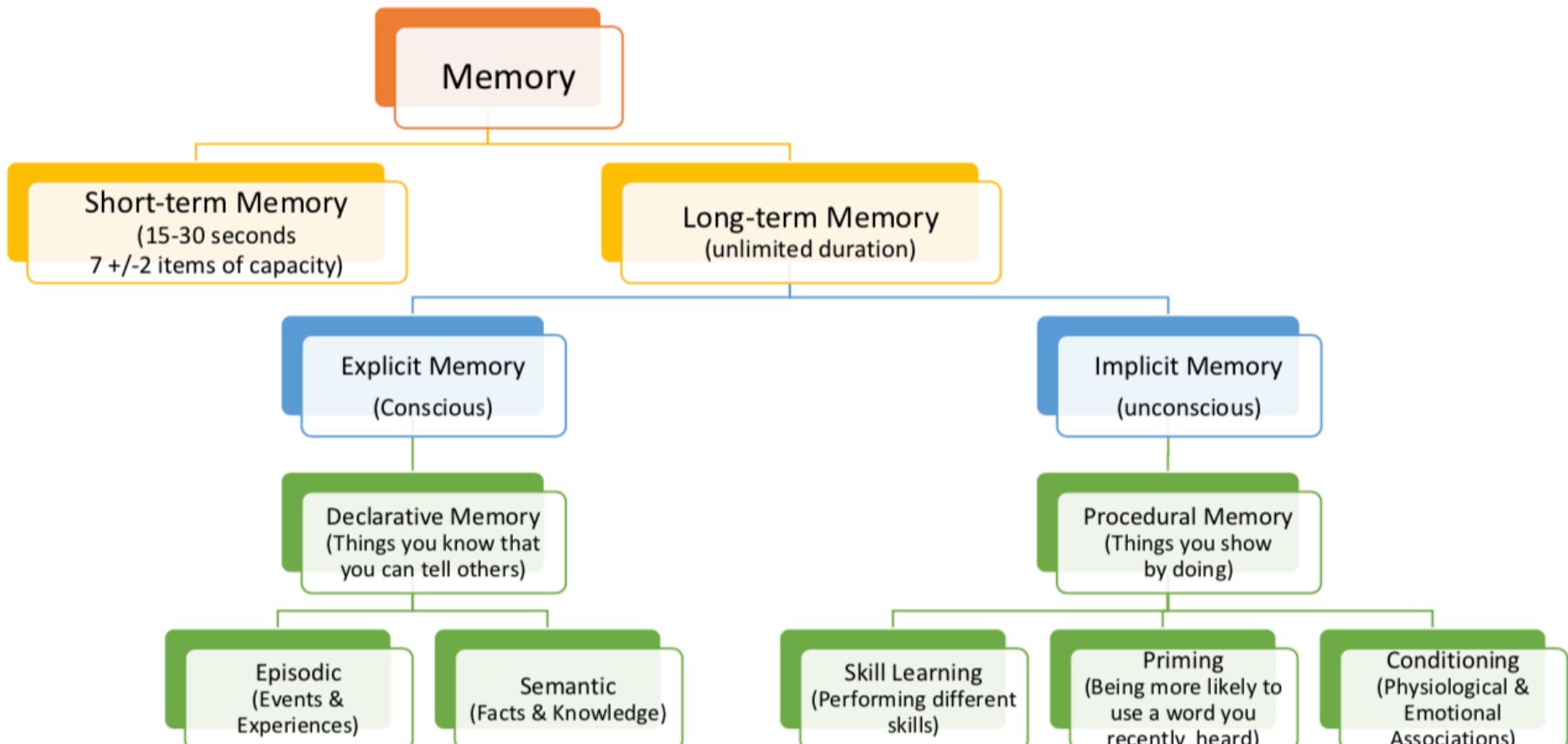
Here are some implications for ministry we can draw from the memory chart:

- A person who cannot recall an early trauma in life may still have unexplainable negative emotional responses to certain stimuli (e.g. a baby who was physically abused in a bathroom may avoid taking baths and become irritable and upset when entering a bathroom). We should not dismiss these reactions as irrational, but remember there's probably a reason behind the reaction and learn from them.
- During times of stress or trauma, people are going to experience difficulty concentrating and learning new information. Slow down. Don't give needed information and expect them to retain it. If children struggle in school after a distressing event, it may not be a function of their intellect or motivation, but an indication that they are still stressed and not feeling safe.
- First focus on helping people feel safe physically and relationally.
- In order to do so, it is important to listen and help people pay attention to their bodily responses to help create felt-safety together. Remember that they might not have conscious awareness of

what stimuli are distressing to them. You have to go by what feels safe to them even if it's for unknown reasons

- Since traumatic memories are associative and live in the body, we need to also work with the body and help create new positive associations.
- After a traumatic experience, do not expect people to recall what happened in a logical, sequential manner. They are going to remember bits and pieces. It's more helpful to ask about what *they* remember especially feelings, sights, sounds and sensations.
- Even if people we work with minimize the impact of forgotten events themselves, be mindful that they might still be affecting them.
- Research shows implicit memories of early relational experiences shape people's unconscious views of God.

Types of Memory



Example:

You remember the first time you bought a car.

You remember what a car is.

How trauma can affect it:

Shutdown episodic memory and fragment the sequence of events.
E.g. can't recall what happened before or after the accident or the exact sequence of events.

Prevent information from combining to make a semantic memory.
E.g. difficulty learning new information while stressed

You know how to drive a car without thinking too much about it.

Can change patterns of procedural memory.
E.g. unconsciously tense up and alter posture, which affects performance and can lead to pain or even numbness.

When asked, you are likely to name a type of car you've recently seen.

You feel a wave of anxiety the first time you drive after an accident.

May get triggered and experience painful emotions, often without conscious awareness of the stimuli associated with the accident.