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Memory, Fact vs. Fiction

Section I – What I Know, Assume or Imagine

Memory is not a topic that many people ponder often. I have always wondered about the incredible ability of our 3-lb mass that sits on our shoulders. I am intrigued by the ability of the mind to memorize and recall, whether vaguely or distinctly, every experience that someone has gone through. There are many aspects of memory that interests me, like photographic memory, memory loss, amnesia, memory triggers, and even déjà vu.

The ability to memorize vast amounts information and to recall them to use to our advantage is one of the very features that separates humans from other animals. Although many abilities related to memory are just myths such as photographic memory, the concept still sparks imagination and desire in many people. In theory, photographic memory is the extraordinary ability to simply memorize anything and recite any bit of information ever accumulated. Basically, it is like having a computer with an infinite-byte hard drive as a brain recording every single detail in everyday life. This sort of ability can be seen in many detective and mystery-related television series. Upon seeing some of these shows, I always think to myself, “That would be an amazing ability to have. If I had it, I would be set for life.” I have always wondered why no one has been reported to have a photographic memory. I am fascinated by memory and personally hope to study it professionally as a career and even maybe achieve something close to it.
Memory loss and amnesia are real tangible problems that relate to memory and, unfortunately, they are very common. Many times, it is reported that a person loses his or her memory after some traumatic accident, usually one that induces a coma. With age comes the dreaded memory loss that is just a part of life. My grandpa, who recently passed away, suffered from memory loss due to old age. During this time he had trouble remembering my name and he couldn’t even recall my sister at all. The doctors never said anything about disease, but I suspected that maybe his memory loss was due to Alzheimer’s. This was a very saddening development in my grandpa, but at the same time it continued to kindle my interest in memory. I wondered how old age damaged the brain to such a point that the very memorable moments in life could not be reminisced. Memory loss could also be looked at on a smaller scale. How is it that we forget little details and eventually the majority of memories as time passes? How is it that we can barely even remember what we had for dinner last night? It is true that nothing lasts forever, but why?

Some of the strangest memories can be invoked though random things we experience. Honestly, I have always wondered what déjà vu is and how it works. Everyone has them all the time. I constantly get that sense and it makes me feel like this already happened. Some people believe it is the supernatural sense of future sightseeing, like a dormant premonition. Others, those who are more scientific, simply think it is a glitch in the brain. Either way, it is still intriguing and exciting every time I get that feeling. The brain itself is a mystery and the many functions of it are still unknown. The simple three-pound mass sitting in everyone’s head controls the rest of the human body, and memories are only a tiny part of it. Memory truly is an obscure, yet exciting human attribute that many people take for granted. I just want to distinguish between the facts and fictions of memory.
Section II – The Search

When I first started my search, I was oblivious to all the thousands of abilities and problems associated with memory. Memory, in general, is a very broad topic. Under memory, I was interested most in photographic memory, memory loss, amnesia, memory triggers, and déjà vu. I had thought that some of my earlier perceptions of these topics were exaggerated by my imagination, but I was surprised to find that I was pretty close.

Photographic memory is one of the most common memory related myths that sparks the human imagination. Photographic memory, also know as eidetic memory and total recall, is the ability to accurately recall any and all memory every experienced. According to the theoretical description of eidetic memory, if someone were to have it, he or she would be able to glance at a series of fifty random symbols and remember them completely without flaw. Joshua Foer wrote an inclusive article about the fabled photographic memory, but he also pointed out that by definition, no one has a photographic memory. Looking through the past, Foer discovered many people who had something similar to the legendary eidetic memories. “…not to say there aren’t people with extraordinary good memories – there are. They just can’t take mental snapshots and recall them with perfect fidelity” (Foer). Some people have amazing abilities in memorizing large amounts of information in a short period of time, but technically they do not posses photographic memory. “Kim Peek, the 53-year-old savant who was the basis for Dustin Hoffman’s character in Rain Man, is said to have memorized every page of the 9,000-plus books he has ever read at 8 to 12 second per page…” (Foer). Although Kim was never tested to a rigorous extent, he was still able to remember those books with extreme accuracy. Another savant named Stephen Wiltshire “has been called the ‘human camera’ for his ability to create
sketches of a scene after looking at it for just a few seconds. But even he doesn't have a truly photographic memory. His mind doesn't work like a Xerox” (Foer). Wiltshire and many other creative geniuses, musical and artistic, like Mozart and Claude Monet possessed abilities close to that of a perfect memory, but they only showed it in their areas of expertise (Eidetic Memory).

Around the time of my grandpa’s hospitalization, I started to wonder how memory loss happened. Also, from volunteering at the local hospital for three years, naturally I became curious to how memory loss worked. The patients I deal with are usually elderly and they are always telling me that their memories are not what they used to be. On occasion, I meet an amnesiac, who is not old, but has absolutely no recollection of some memories. Many medical sites have explained that memory loss is most commonly related to aging, but there are other causes.

It is common from observation for people to suspect that memory loss is just a byproduct of aging, but in my research I discovered something else: “When you’re in your 20s, you begin to lose brain cells a few at a time. Your body also starts to make fewer chemicals your brain cells need to work” (Memory Loss with Aging). Although the process begins relatively early in life, the natural loss of brain cells only account for a tiny portion of memory loss. Nutrition is a huge part of maintaining memory. “The aging process itself plays a small factor in memory loss; instead it is the occurrence of other illnesses and poor nutrition that deteriorates our memory over time” (Information About Memory Loss). I was baffled by this information. I always suspected that aging was the main reason for memory loss, but it’s mainly due to a lack of nutrients that the brain requires to function.

There are three general types of memory: procedural, semantic, and episodic. Procedural memory is just motor skills like moving, talking, and eating. Semantic memory is the collection
of facts, like what is this? What is that? Episodic memory is the one that controls experience, the very memory that we tend to forget. “Brains shrink by about half a percent a year, starting around age 30—though usually we don’t notice any change for years. And here’s the rub. Episodic memory relies heavily on the front areas of the brain, the frontal lobes—the very areas that start shrinking first” (Lear). According to some scientists that study memory, like Dr. Richard E. Powers, the loss of memory may be the natural normal way of life. I considered this myself and in a way it makes sense. We only have so much memory space in our brains. The more we remember the longer it takes to remember certain things. “Think of our kind of memory loss as nature’s priority filing system” (Lear). The episodic memory, or experience, is stored in the attics of our brains where we tend to forget because it is the least important. Procedural memory is the top priority in this case. It is the basic instinct that we need for survival. Then semantic memory, as it helps to know facts for survival. Episodic is last because it is the least important in our survival structure. I mean, how important it is for survival to know what restaurant we ate at last night? Overall, it is better, biologically, to remember how to breathe and eat than to remember what I ate for breakfast this morning.

I always thought that amnesia was just the inability to remember certain memories due to traumatic stress, but there is actually a large range of subcategories that fall under amnesia. From the common physically induced post-trauma amnesia to the psychologically caused dissociative amnesia. Post trauma amnesia usually occurs after some direct damage to the head. The degree of the amnesia depends on the degree of the injury. Car accidents are considered mild trauma and result in a “brief interruption in the short/long-term memory transfer mechanism” (Amnesia). Dissociative amnesia, also known as organic amnesia, is cause by stressful and traumatic events, such as a violent rape. These memories are inadvertently repressed “in long term memory, but
access to it is impaired because of psychological defense mechanisms” (Amnesia). Researchers indicate that “repression may be one method used by individuals to cope with traumatic memories, by pushing them out of awareness” (Repressed Memory). Eventually, repressed memories are forcefully forgotten. Human memory cannot only accidentally forget incidents, but it has the ability to intentionally forget certain experiences.

Apart from forgetting, the human memory can also play tricks. I constantly forget things, but sometimes I remember a sort of false memory about an event that actually occurs when I actually go through that event. Déjà vu is a strange glitch in our memory system. It’s like a dormant and completely forgotten memory that I suddenly remember when it happens “again”. Apparently, déjà vu is categorized into three categories: déjà vécu, déjà senti, and déjà visité. Déjà vécu refers to the extremely detailed “memory” that causes people to sense everything is as it was exactly in the “memory” and happens in the exact same order. déjà senti is the sensation of pre-recognition in a mental state. déjà visité is the sense of familiarity in a new environment, never previously visited. All of these types of déjà vu are unexplained, but there are popular theories, none of which include supernatural “prophecy” or “precognition.” The most popular theory is a mishap between short-term memory and long-term memory. Short-term memory is responsible for perceptions of the present while long-term memory is responsible for memories of past events. This overlap in events “…would be stored into memory before the conscious part of the brain even receives the information and processes it. This would explain why one is, if it ever comes to mind, powerless trying to twist the outcome of the event in order to create a paradox. The delay is only of a few milliseconds, and besides, already happened at the time the consciousness of the individual is experiencing it” (déjà vu). Even though our brains are a complex and vital part of our lives, they are still flawed with many anomalies. Some people
remember a great deal, some people barely remember anything, and others have “precognitive” memories.

Section III – What I Discovered

I was amazed at the results that I found from my research on memory. I have always assumed that memories were a collection on experiences and took it for granted. Our brains are actually very complicated. I have leaned a lot about memory loss, déjà vu, and the so-called “perfect” memory.

I have always thought that memory loss only occurred as we aged, or from traumatic stress. From my research I discovered that a lock of the proper nutrients also cause memory loss, and in fact that is the most common way of losing memory. My eyes were also open to the grander scheme of our brain function. From Lear, I learned that we have three basic types of memory. From the way she explained it, it was to our benefit that we forget many of our past experiences so we could remember basic survival methods. In another sense, memory loss can happen from traumatic stress. Many times, people lose memories from being hit in the head, but this doesn’t happen as often as I thought. There is also a large variety of different forms of amnesia that I never knew before.

Before this research I was hoping that photographic memory was possible, but to my dismay, I realized that it is basically impossible. To be able to remember anything and everything ever experienced is an extraordinary skill that I now know to be impossible. Although, there have never been any recorded cases of eidetic memory, I have leaned about some people who had heightened abilities to remember. After this research, I realized that the “perfect” memory may exist right now, but it is a certain possibility farther down the evolutionary process.
Déjà vu was the most surprising results I found from my research. I never really believed that I had, or anyone else for that matter, psychic abilities, yet I have experienced some of these “precognitive” abilities. I am very skeptical when it comes to the supernatural so déjà vu has always intrigued me. I discovered that even the most eminent memory experts did not have an exact answer for this phenomenon. One of their theories about a memory slip up, however, makes perfect sense and it is the most widely accepted reason amongst scientists.

I discovered that our brains excel in the field of memory compared to other living creatures, but even our complicated minds present anomalies. These unexplained occurrences in the mind disrupt memory, causing amnesia and natural memory loss, provide an impeccable memory for others, and even cause people to have “premonitions.” The memory and all of its sub-categories are all mysteries. So which facts are actually facts and which ones are just wishful thinking?
Works Cited


“Information about Memory loss - Causes, Symptoms, and Supplementation.” *Healthy New Age*.


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