



The evolution of the perspectives on hallucinations from the 1600s until present day

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ABSTRACT

In the present day, hallucinations are a highly researched topic, in which there is a somewhat good understanding about some of the causes and treatments for hallucinations. There is a common understanding of what a hallucination is. Through various neurologists, neuropsychologists, and neuroscientists, the world has been given many definitions of “hallucinations” and how they can affect a patient. This change has been seen overtime. In the 1800s, Jean Etienne Esquirol first discovered and denoted the word hallucination as “a wandering mind” after he went through the symptoms himself, and by the 17th and 18th centuries scientists denoted hallucinatory experiences as a spiritually meaningful and enlightening insight. Later, in 2012 neurologist Oliver Wolf Sacks described a hallucination as “percepts arising in the absence of any external reality” and described the involvement of the brain’s fusiform gyrus, and in the most recently published research papers, scientists including Laura Dorwart refer to a hallucination as “the experience of sensing things that exist only in your mind.” Clearly, there have been lots of shifts in the common understanding of what a hallucination is. This research paper explores and examines both the philosophical and scientific perspectives on hallucinations across time, focusing on how definitions have changed from the 1600s to the present day. Recognizing the shifts in understanding hallucinations is important as it influences how scientists diagnose and treat patients now, and it also may give us an understanding of how scientists will consider hallucinations 100 years from now, similar to how we consider the definition of hallucination from more than 100 years ago. Hallucinations come with many negative connotations, and understanding the history of hallucinations can help improve treatment and reduce stigma associated with them in the future.

Keywords: *Hallucinations, definitions, philosophical, perspectives*

INTRODUCTION

Hallucinations are a concept that most people have heard of, but like many other mental illnesses, many lack a complete understanding of what they are. The objective definition for a hallucination seems to be the experience of, most commonly, seeing or hearing something that isn't there. There are various causes for hallucinations, and the most common cause of hallucinations is schizophrenia. However, despite how they are often portrayed, one does not necessarily need to have a psychotic disorder to experience hallucinations. Hallucinations can be caused by numerous disorders, and different disorders may cause different types of hallucinations. Auditory hallucinations are when patients hear voices or sounds in the absence of any external stimulus or speaker. This can be caused by post-traumatic stress disorder

(PTSD), dissociative identity disorder (DID), the use of hallucinogen drugs, and more. On the other hand, visual hallucinations similar to auditory hallucinations are when a patient sees objects, patterns, animals, and people that are not actually there (Moskowitz et al., 2017). Visual hallucinations are more commonly caused by narcolepsy, hypnosis, sleep deprivation, migraines, hallucinogen drugs, and intense emotional experiences (Teeple, R.C., Caplan, J.P, and Stern, T.A., 2009). Understanding how hallucinations affect people in our society is important for the overall safety, neurological health, and impact on daily life for the patient. It is important to know the underlying factors of how a hallucination influences a patient not only for psychologists but for people related to the patient as well, since hallucinations can be detectors of past traumatic experiences such as domestic abuse, violence, and more.

After a patient reports having/experiencing a hallucination to a psychiatrist, psychologist or doctor, they will be diagnosed through brain scans, urine and blood tests, and physical exams. Through the brain scans, the examiner will be looking for any structural differences between those with and without hallucinations, focusing on areas such as the hippocampus, which is involved with memory and learning. Through the urine and blood tests, psychiatrists look for and analyze any use of drugs that could have caused the hallucinations to happen, such as the use of hallucinogens, which could have been prescribed to the patient or not. Through physical exams, the examiner will be looking for visual impairment, a history of headaches, and or inattention, symptoms that could have caused the hallucinations to occur (Teeple, R.C., Caplan, J.P, and Stern, T.A., 2009).

Psychiatrists treat hallucinations with antipsychotic medications such as risperidone and olanzapine to stabilize the hallucinations patients face, making them less severe. Besides this, psychologists use psychotherapy to create an understanding for their patient and the hallucinations they are facing. Psychotherapy helps by giving patients the room to understand what's happening to them, why they are facing these hallucinations, and how they can help themselves feel less paranoid, scared, and alone (Christiano, A., 2018)

As understanding of mental health continues to be modernized, definitions of words are modernizing as well. The more that is discovered about something, the more ideas and thoughts are circled around it. Hallucinations are an excellent example of this. Like most things, hallucinations didn't have a clear definition when they were first described. During the 1600s, for many civilizations such as the Greeks, one experiencing a hallucination was thought to be "divine" or hearing "the voice of god." For the Indian civilizations, hallucinations were considered as "false perceptions (mithyajnana), illusions (maya), infatuations (Moha), [and] confusion (brahma)", they used their own medicine and theories in a medical practice known as Ayurveda to sooth what they called the "abnormal mind," (Deshpande, A., & Balsavar S., 2014). Unfortunately, later on, hallucinations came to have a negative connotation, leaving more people in the fear of the unknown. It was during the 1800s when psychologist

Jean-Estienne-Dominique Esquirol coined the actual term “hallucination” when it then gained its first medical definition. Before Esquirol, hallucinations were defined in a spiritual sense. Esquirol coined the term hallucination and then described it as “a wandering mind,” differing from the past definitions of “the voice of god,” turning the perspective of the disorder into the medical field.

The purpose of this research paper is to illuminate the influence and effect hallucinations have had on our world for the past 400 years and the unique reality those experiencing hallucinations encounter.

Hallucinations During Ancient Times: The word hallucination comes from the Latin term “Hallucinari” or “Alucinari.” The first denoted experience of a hallucination came from the Greek philosopher, Socrates, in a situation where Socrates “heard a voice, which he understood to be divine”. Similar to Socrates, back then common folk seemed to believe that the voice some were hearing might be “the voice of God, or at least of an angelic or spiritual being.” Up until the 19th century, these sorts of voices and visions were understood as spiritual and or mystical experiences even though, needless to say, people still feared the unknown. Many questions arose, like, when someone claims to have heard the voice of god should they be encouraged or not? Understanding that it could be coming from their own unconscious. This shows the contrast of beliefs and perspectives to the word “Hallucination” that already seemed to start in ancient times (Cook, C. C. H., 2019).

Civilizations such as the ancient Indian Hindu Civilization had their own system of medicine they called Ayurveda. Although Ayurveda is still very popular in India today, modern medicine has overshadowed it, undermining the power it once held. Ayurveda was and is made by a collection of various health theories and varied practices. Ayurveda uses its theories to explain the abnormal mind and psychopathology. As mentioned above, there were 4 categories of hallucinations in Ayurveda. Predictably, the theories of Ayurveda and its systems deemed hallucinations as “abnormal.” However, this doesn’t mean that these civilizations didn’t understand where these hallucinations were coming from (Deshpande, A. & Balsavar, S., 2014).

Unlike the Greek civilization, the Indian civilizations didn’t think this was a “voice of god” instead they concluded that “the mind (manas) is responsible for sensory perception, [and that], it has specific functions of its own.” Although the Hindu civilizations may have feared hallucinations, “these sensory perceptions were noted, studied and were given great importance as an indicator of prognosis of diseased condition in Ayurveda”. It is because of these ancient civilizations that today in the modern world we can at least start to understand how hallucinations came to be, and how much they’ve changed since the 19th century (Deshpande, A. & Balsavar, S., 2014).

Hallucinations in the 1600s to 1800s: Notably, during the 1600s the experiences of hallucinations were considered spiritual and meaningful. While those who hallucinated were still thought to be hearing the “voice of god”, hallucinations were looked at through the lens of philosophy more than the lens of neurology and psychology. One paper describes how by the end of the 1600s, the field of neurology became more prevalent, and these conditions went from being viewed as supernatural to being viewed as natural, Trimble, M. R., & Reynolds, E. H. (2016). During the 1600s, hallucinations were also denoted as “a wandering mind.” This definition is attributed to Sir Thomas Browne, an English polymath and physician (Berrios, G. E., & Markova, I. S., 2011).

During the 1600s however, when people were hallucinating, they would be brought to facilities publicly known as hospitals, but this definition was somewhat inaccurate as patients did not receive medical care (Historic England, 2019). One of the most famously known hospitals was one based in England, the Bethlem Hospital. It was England’s only hospital for the mentally ill which played a role in treating and accommodating a limited number of patients. The hospital was for patients who were going to hurt themselves or somebody else. It was never intended to cure and help the patients but keeping them in a place where they would do no harm to others or themselves, this today would be known as an asylum. This not only shows how misunderstood mental disorders were during this time but it also shows how, specifically, hallucinations much like other mental illnesses, always had a negative connotation even though it was also thought that hallucinations could be the voice of god. Hallucinations and similar mental disorders during the 1600s show the 2 different ways of thinking for humans. One is to think that hallucinations are the voice of god and the one experiencing the hallucination is divine and the other is to fear the unknown and destroy it before it can affect anything else.

During the mid-1700s and 1800s hallucinations were considered in more of a medical sense. In the 1830s, a French psychiatrist by the name of Jean-Etienne Esquirol made the word “hallucination” come into use. In the book “Hallucinations” by neurologist Oliver Wolf Sacks describes how Esquirol gave the term its “present meaning” - prior to that, what is now called a hallucination was referred to simply as “apparitions.” Esquirol’s new, medically indicated definition of a hallucination propelled future psychologists toward what would soon be defined as hallucinations. After this, almost 60 years later, American psychologist and philosopher William James gave the word a different definition. James stated that a hallucination was a form of consciousness that was strictly sensational. He said that the sensation is as if a real object is there, but just happens to not be (Sacks, O., 2012).

As time progresses, there is a noticeable sort of lightness that follows through each definition of a hallucination throughout history. James’s definition seems a little different than the typical definition since he defines a hallucination as more of a sensation rather than something that has to do with the mind. This definition takes it back to a spiritual meaning rather than a medical one; for example, the past definition of “a wandering mind” doesn’t seem to apply for James’s

definition. From the 1600s till the end of the 1800s, there was an immense change in the definition of hallucination, evolving from a spiritual event to a medical problem, excluding James's definition.

Hallucinations from 1900s-2000s: By the 1900s the word hallucination had been established in a medical sense and many more psychologists shared their modified views on how the word should be defined. Asa Jansson (2017) states that "a number of medical writers were keen to make diagnostic language more precise; thus, we see in this period several attempts to clarify the difference between delusions and hallucinations". The difference between delusions and hallucinations is essentially very simple. Hallucinations are characterized by "false perceptions" whereas delusions are characterized by "false beliefs." The difference between a belief and a perception is that a perception is the way someone interprets and understands sensory information that is obtained through the 5 senses, but a belief is a judgment or acceptance that something is real and that it exists, usually without proof (Frith, C., 2005). It was during this period that Jean-Etienne Esquirol's work came into use as he clarified the difference between illusions and hallucinations, where he stated his definition of a hallucination, "a perception of an object or sensation that isn't actually there", and then stated that an illusion was a "sensory misperception". Various psychologists offered definitions or "Neurophysiologic hypothesis" of what a hallucination was. For example, in 1932 psychologist Hughlings Jackson "suggested that hallucinations occur when the usual inhibitory influences of the uppermost level are impeded, thus leading to release of middle-level activity, which takes the form of hallucinations," (Kumar, et al., 2007). Another example definition is from 1970 by Amedeo S.Marrazzi, who stated that "hallucinations result from a dissociation between primary sensory cortex and cortical association areas which exert a regulatory influence on the former."

Overall, in the 1900s the definitions of hallucinations seem to be getting closer in a sense of similarity. As the 1600s come to a close, the overlap between these definitions becomes evident, though some debate remains hidden. Both these definitions seem to agree with the general thing that is causing the hallucination but the specifics of the relevant brain region differs. Throughout the 1900s, the varying definitions reflect the differences in the complexity of thought when providing a scientific definition compared to the 1600s.

Hallucinations from the 2000s to Present Day: Now in the modern day, there are thousands of definitions of what a hallucination is. Neurologists like Oliver Wolf Sacks have dwelled on this and have defined it as follows "A hallucination tends to occur suddenly. They're involuntary, we don't order them, they suddenly force themselves on our consciousness, they seem to be out there in the real world and it's very confusing to see or hear or smell something that no one else does," (Sacks, O., 2012). Although this is similar to Jean-Etienne Esquirol's definition, it shows how these definitions change over time.

Unfortunately, in today's world, the word "hallucination" is often tossed around loosely, and, to common folk, the words hallucination and delusion are yet again tied together even though they are different. Hallucinations are one of the hardest to define terms as there are so many different definitions to the word. Now hallucinations are most closely "associated with conditions like schizophrenia, neurological disorders, and drug use." And hallucinations are defined as "perceptions in the absence of an external stimulus." (Jardri et al., 2019). The definitions that we have today all seem to try to say the same things but in different ways. In a time of rapidly evolving technology, a significant advantage is the enhanced understanding of how hallucinations affect the brain, coupled with the ability to develop treatments to assist patients experiencing hallucinations.

The more something is understood the quicker treatments are found to help patients. The most common treatments seen from the 2000s till, present day, 2024 are psychotherapy, medication, and community services (Jardri et al., 2019). This modern world is growing in various ways every single day and new inventions are being created and brought to life. Although there is no record of it now, psychologists say in the future through the help of technology like AI, there is talk of being able to physically see the hallucinations patients experience giving a more in depth understanding of what patients go through while hallucinating. Accumulating over 100 definitions for the word hallucination hasn't helped the world stick to one, with more modifications happening each day and still so much left to discover, in the next 10 years we could see 100 new definitions for the word hallucination.

Discussion:

The findings of these various studies show that with expanding knowledge, the communal understanding of a hallucination, or any mental illness for that matter, will never stop growing. From the time of the ancient civilizations till now, the evolution for the definition of what a hallucination is keeps modifying. Even during the ancient times, civilizations like the Hindus and Greeks had differing opinions on the concept of what a hallucination was. The Indian civilizations thought of hallucinations as "Brahma" or "Maya", translating to illusions while the Greek civilizations thought of hallucinations as "the voice of god" and treated those experiencing hallucinations as such. Now in the modern era, the world has so many definitions it's hard to pick one. One definition from late Neurologist Oliver Sacks is as follows, "A hallucination tends to occur suddenly. They're involuntary, we don't order them, they suddenly force themselves on our consciousness, they seem to be out there in the real world and it's very confusing to see or hear or smell something that no one else does," (Sacks, O., 2012). Even from the 1900s-2024 the growth of the word is very impactful, it was during the 1900s when the term "hallucination" coined a medical sense and more psychologists came out to give their opinion on the "right" definition for the word. The world is expanding in every sense every day, from new discoveries to new technology. In a few years the definitions that stand today will become outdated but the new definitions will be built off of these old ones. For the future, a new concept of seeing



patients hallucinations and experiencing them with the patient has come to light with the help of technology like AI. Future research will have the upper hand with technology like AI, allowing them to see and discover the before unattainable.

Conclusion:

Having more perspectives on a topic often creates the impression that collectively it is understood better. Over the course of history, there have been many changes to understanding what a hallucination is, but this also means that there is not a collective “one-understanding” of what a hallucination is. The earlier definitions of a hallucination brought on a more philosophical and spiritual perspective, the early Greek civilizations seemed to think the person experiencing the hallucination was divine and hearing the voice of a god, while some other civilizations, like in India, had their own thoughts, saying those experiencing hallucinations had an abnormal mind. The change in perspective even dates all the way back to the 1600s, showing that humans seemed to always have their differing thoughts even without modernized innovations, technology, and opinions. Then, in the 1800s, Jean Esquirol coined the actual term hallucination and shed light on the medical aspect of this phenomenon. Throughout time, but especially since hallucinations are viewed in a medical light, it's important to understand the impact that a hallucination has on a patient not only for the sake of the person but also because of the influence that someone's hallucinations can have on the community around them. Some people still might not understand the full effect these hallucinations have due to stigma around mental health topics and problems. When people see someone dealing with a hallucination or any other mental illnesses they deem it as “crazy” or that they are “on drugs” when in reality it could be an undiagnosed mental health problem. The patient struggles by not being able to tell the difference between hallucinations and their reality and the repercussions of that are left with the family and friends around them. One who experiences a hallucination will often feel alone but fortunately, modern medicine and newfound approaches in psychotherapy help reduce the impact of hallucinations on day-to-day life and enhance peoples' understanding. In the future there will continue to be evolving understandings of what hallucinations are, and in time, the current definitions and approaches to treating hallucinations may become either outdated, inaccurate, or incomplete. Some may say that the past perspectives on what a hallucination is, is not useful to our modern world, but those past definitions are what current understanding is built off of. Everything learned today opens the door to an even more complete understanding of hallucinations for the future.

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