

## **Pareidolia-A weird Phenomenon**

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### **Abstract**

*Pareidolia is a topic not known to a common man. It is a weird topic which reveals how brain can fool us. We might have been deceived by looking at clouds and observed a face staring at us, or could figure out an image from the water spilled on floor. Brain tries to make meaningful perception even when there is none.*

*This paper brings to you several facets of Pareidolia. Starting from defining and understanding its meaning, we explore its characteristics, its types, activities that happen in brain when we are engulfed in Pareidolia, how it evolved in humans from ancient times and the benefits which accrue out of it. It is a rare topic and the contents will enrich your knowledge*

**Key words:** *Pareidolia, mischieves by mind, Brain weird actions, pareidolia and parapsychology, Rorschach Inkblot Test*

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I came out of ICU to inform my brother that dad was no more. He expired a moment ago at the age of 92. My mind was playing a flashback with memories of past which had mom and dad. As I came out of ICU and looked at the relatives sitting on a bench in front of ICU, I was dumbstruck to see my mother in the row of relatives. I told my brother about death of dad and told him to look at Ma sitting on the bench. He also exclaimed that Ma has come to accompany dad to the new world. We both were dumbstruck to see our mother there because she had died thirty years back.

I, then, thought that there is some truth in existence of spirits and ghosts as I had above first-hand experience.

Later when I researched, I found that Pareidolia had taken over the minds of me and brother and our brains had tricked us by generating a wrong perception by morphing our mother's face on a lady's face and we felt we had seen our mother.

I recall that when I was five years old kid i.e., 67 years ago, we could not sleep inside room in hot summer nights and had to go to terrace with our beddings and slept under the open sky. It was very comfortable feeling as suffocation of damp and hot room no longer troubled us.

Mother used to point to the sky and told me to look at the moon carefully to locate an old woman who is spinning 'charkha' to weave cloth out of thread. It appeared absurd to me to think of some woman doing the spinning act on moon, but still I gazed at moon which was brightly lit and had a soothing cool effect on me and after several seconds of staring I could see the old man spinning the 'charkha' and I cried out loudly, Yes, Ma I can see her, I can see her.

### ***It was Pareidolia at work!!***

This was my first encounter with Pareidolia, however at that young age I did not know it and had sincerely believed to have seen Old woman spinning 'Charkha'.

Today, at the age of 72, when I had obtained an advanced certificate in Parapsychology from Australian Institute of Parapsychological Research and was immersed in researching paranormal topics, I came across the term, "Pareidolia" and I researched it.

I discovered very interesting aspects and am down to writing this research paper.

Pareidolia is a naughty act of brain by which it fools our perception. Our brain develops and accumulates memories and when it is confronted with a complex thing, it tries to recognize it by comparing the aspects in the conscious and subconscious memory and gives a meaning to the complex thing. It tries to make sense out of an entropy. Evident examples are when we look at cloud intently, we see images which look familiar –maybe an elephant or shapes which resemble known things. When we spill water on floor and it flows randomly, we perceive some familiar faces or images out of the spilled water.

In this paper, we shall delve deeply to explore facets of Pareidolia ( which itself is unknown) not known to most of us. We shall be amused to find how brain can fool us. We shall start with defining Pareidolia and then extract its meaning as derived by different thinkers, how it has impacted other branches of science, we shall understand its characteristics, how it affects us, what activities go in brain while it is fooling us with

Pareidolia, how it came to be understood by humans and what is its history. What are its negative and positive aspects and can brain be trained to not drift us to prevent Pareidolia manifesting in us. I know that my wishes are too far-fetched and I am not sure whether I shall be able to do right justice to the subject because this is a virgin unexplored area. Anyway let us try and leave it to readers whether justice was done or it remained half cooked!!

Let us first come to its definition.

**Definition and meaning of Pareidolia**

Merriam Webster dictionary gives following definition:

**Pareidolia** is defined as the tendency to perceive a specific, often meaningful image in a random or ambiguous visual pattern. The scientific explanation is the human ability to see shapes or make pictures out of randomness. (<https://www.merriam-webster.com/dictionary/pareidolia>)

Medical dictionary defines it as follows:

The perception of a recognizable image or meaningful pattern where none exists or is intended, as the perception of a face in the surface features of the moon. (<https://medical-dictionary.thefreedictionary.com/pareidolia>)

Another way of defining Pareidolia -- “The imagined perception of a meaningful pattern in something that is random or indefinite.” (<https://www.yourdictionary.com/pareidolia>)

Another way of looking at it -Pareidolia is the interpretation of previously unseen and unrelated objects as familiar due to previous learning . Pareidolias are visual illusions of meaningful objects such as faces and animals, are thought to arise from ambiguous forms embedded in visual scenes and have a striking phenomenological resemblance to visual hallucinations .(<https://healthjade.net/pareidolia/>)

Thus we can say that **Pareidolia is a visual hallucination generated out of a meaningless complex where a meaning from inherent conscious/ sub-conscious memories of faces or images is attached to the thing and we perceive a non-existent thing.**

Larry Sessions<sup>1</sup> expands the meaning of Pareidolia and submits some images to explain the phenomenon: - Seeing familiar objects or patterns in otherwise random or unrelated objects or patterns is called *pareidolia*. It’s a form of *apophenia*, which is a more general term for the human tendency to seek patterns in random information. Everyone experiences it from time to time. Seeing the famous man in the moon or the canals on Mars are classic examples from astronomy. The ability to experience pareidolia is more developed in some people and less in others. Look at the photos below to learn more and test your own ability to see things that aren’t there.

Some pictures explain the phenomena



Picture 1-Can you see a bird in flight in this photo? It’s a photo of the aurora borealis taken near Fairbanks, Alaska, by Dave Bachrach.

Some more pictures are reproduced from his paper which bring out the awareness how brain can fool us by making us perceive images which are non- existent. In the picture below there is a rock but an image of face of a person with hair on his head displayed by grass on the rock protrudes out prominently. Just have a look: -



Picture 2:Erwan Mirabeau shot this rock formation in Ebihens, France. It's reminiscent of a green haired man, known in the area as an Apache. Photo via Wikimedia Commons

Another picture which is given below brings out images to some and no image to others , just try



***Picture 3:What can you see in the folds of this tissue? Many people will not see anything. It depends, in part, on the innate ability to see patterns, and in part on the natural inclinations and interests of the viewer. In some cases the image will immediately pop out, while for some folks it will come after a little close examination, and others may not be able to see it at all.***



Some more photographs from a different source depict images formed by our brain which demonstrate Pareidolia at work



*Picture 4—clouds giving impression of a flying bird*



*Picture 5—rocks giving perception of faces of some animals*

(Source of above two photographs-  
<https://www.gettyimages.in/photos/pareidolia?assettype=image&page=2&phrase=pareidolia&sort=mostpopular&license=rf,rm>)

Pareidolia is a mental phenomenon and makes the mind create familiar faces or patterns when eyes are looking at complex scenery.

It has another dimension also where it can also result in the perception of two things from a single image. There are many examples of this. The visual illusion created by Pareidolia can be experienced by looking intently at the painting entitled "My wife and mother in law" by W E Hill. You will either see a young woman looking away or the profile of an old woman: two perceptions contained in the same picture. The perceptions occur alternatively i.e., you can't see both the pictures simultaneously. The picture is produced below, please look at it intently and you will see two distinct faces alternatively—side profiles of a young woman and another is side profile of an old woman



*Picture 5—Pareidolia at work to bring two distinct images of old and young women alternatively*

Coming back to the paper by Larry Sessions<sup>1</sup>, author goes on to say that there is absolutely no reason to believe that any of the above images have any meaning whatsoever except the meaning that an active and creative mind may give them. They are not symbols or signs from the spirit world. They are not warnings about the future or indications of the waywardness of our ways. They are simply the result of coincidental patterns that the human mind chooses to interpret in particular ways.

In some ways, the pareidolic images we discover tend to indicate things about which we are most interested, whether they be people, puppies or planes. Finding such “embedded” images can be fun and interesting, almost a hobby for some. But for some they can also fuel obsessiveness and paranoia.

Wikipedia<sup>2</sup> elaborates on the meaning of Pareidolia--- Pareidolia is the tendency for perception to impose a meaningful interpretation on a nebulous stimulus, usually visual, so that one sees an object, pattern, or meaning where there is none. Common examples are perceived images of animals, faces, or objects in cloud formations, seeing faces in inanimate objects, or lunar pareidolia like the Man in the Moon or the Moon rabbit. A simple collection of lines may be quickly perceived as a face, and even be interpreted as expressing a particular emotion. Pareidolia can cause people to interpret random images, or patterns of light and shadow, as faces.

I wonder, why the mind is capable of being fooled. Mind's ability to find imaginary patterns can relate to being the result of tripping of the brain on having formed patterns which are imaginary and not having a genuine instance of cause and effect. Indeed, working of the mind is mysterious and as seen above, it can fool us sometimes by making us see things which are not there or failing to see things which are there!!----the bizarre aspects of perception!..

Pareidolia, indeed, is distorted and bizarre perception and we do know what we are seeing is not real but still perception appears real. Some factors are conducive for producing the weird phenomenon of Pareidolia. Let us explore them –

#### ***Factors that assist Pareidolia***

As per Kim Ann Zimmermann<sup>3</sup> there are a number of theories as to the cause of this phenomenon. Experts say pareidolia provides a psychological determination for many delusions that involve the senses.

Pareidolia often has religious overtones. A study in Finland found that people who are religious or believe strongly in the supernatural are more likely to see faces in lifeless objects and landscapes.

Carl Sagan, the American cosmologist and author, made the case that pareidolia was a survival tool. In his 1995 book, "The Demon-Haunted World – Science as a Candle in the Dark," he argued that this ability to recognize faces from a distance or in poor visibility was an important survival technique. While this instinct enables humans to instantly judge whether an oncoming person is a friend or foe, Sagan noted that it could result in some misinterpretation of random images or patterns of light and shade as being faces.

Megan Kennedy<sup>4</sup> has following to say about the causes of Pareidolia-- Researchers have a few theories as to why Pareidolia occurs. Part of it could be due to our evolutionary heritage, a sensitivity to detecting faces for safety.

While it has also been suggested that pareidolia is a consequence of the brain's information processing system. Constantly sifting through random lines, shapes, surfaces, and colours, the brain tries to pair input with memories stored in our long-term retention of knowledge. This results in ambiguous visual information being interpreted as something we can understand more easily. This brain effort correlates the random lines to some face which come very near in resemblance to these lines and pareidolia manifests

Sergio Pitol<sup>5</sup> discusses some factors that cause Pareidolia: -

There are many different examples of pareidolia; but most of them include the viewing of familiar faces or shapes in images that do not actually contain them. However, auditory versions of this phenomenon can also appear, such as hearing "hidden messages" within a song or recording. Although it may seem like a strange phenomenon, the truth is that experiencing pareidolia is a sign that our brain is working properly. Evolution has prepared us to detect patterns in our environment, and one of the side effects of this ability is finding shapes in places where there really aren't.

There are several explanations for the fact that we detect patterns in places where they do not exist. As with many other psychological phenomena, there is no single cause, but all of them are capable of showing us a part of the truth about this capacity of our mind.

- **Evolutionary explanation-**One of the main functions of our brain is to detect patterns in our environment. Thanks to this ability, we are able to learn from our experience, to predict what will happen in a given situation, and to relate to our surroundings in an appropriate way. Due to the environment in which we develop as a species, evolution has favored people who detect patterns where there are none, rather than those individuals who fail to detect one when it does exist. And, when one of our Stone Age ancestors heard a noise in the bushes, he was more likely to survive if he thought it was a predator stalking him than if he stayed calm believing that it was just the noise of the wind between leaves. In the same way, babies who recognize a human face and smile at it have a better chance of staying alive than those who do not. This is because one of our most basic instincts is to protect the young of our species that give us some display of affection.

- **Brain explanation-**A large number of neuroimaging studies have indicated that the same areas of our brain involved in the recognition of human faces are activated (although in a slightly different way) when they are in the presence of stimuli that bear some resemblance to them. Thus, for example, even an image as simple as a circle with two points and a curved line transmits information to us. Our brain interprets it as if it were a human face, and only with four elements are we able to recognize the "emotional state" that we want to represent. This also happens with other brain areas, such as the one in charge of recognizing spoken language. When listening to a noise, our mind can try to interpret it as a word or a phrase, even if it really is something without any kind of relationship with what we think we hear. The same studies suggest that not all of us experience pareidolia with the same intensity. In fact, some experts believe that the smarter a person is, the more likely they are to find patterns even in items that don't actually include them.

- **Emotional explanation-** Emotion experts have theorized that most cases of pareidolia arise as a consequence of our incredible ability to detect someone else's emotional status. This is especially true when the shape we see bears some resemblance to a human face. And it is that, in most cases, if we want to detect the emotions that another person is feeling, the only clue we will have is the way their eyes and mouth move. That is why even a few lines make us see sentimental expressions on inanimate objects.

It is a strange revelation that evolutionary process makes our brain form even a non-existent picture which suits us for our survival and we are surviving because of this instinct. Equally strange is the fact that pareidolia arise as a consequence of our incredible ability to detect someone else's emotional status depicted by the movement of eyes and mouth and these impressions in our mind relate to a picture having even a few lines and make us see sentimental expressions on inanimate objects. The picture below clarifies the point



*Picture 6—smiling face is emoted by lines on the tree*

Our brain is also a factor that causes pareidolia because the areas of our brain involved in the recognition of human faces are activated even when they are in the presence of a stimuli that bear some resemblance to them. Thus, for example, even an image as simple as a circle with two points and a curved line transmits information to our brain which interprets it as if it were a human face.

Evidently, the most important factor is the brain and we must explore what activities are happening in the brain and what parts of brain are activated during Pareidolia.

#### ***Brain Activities during Pareidolia***

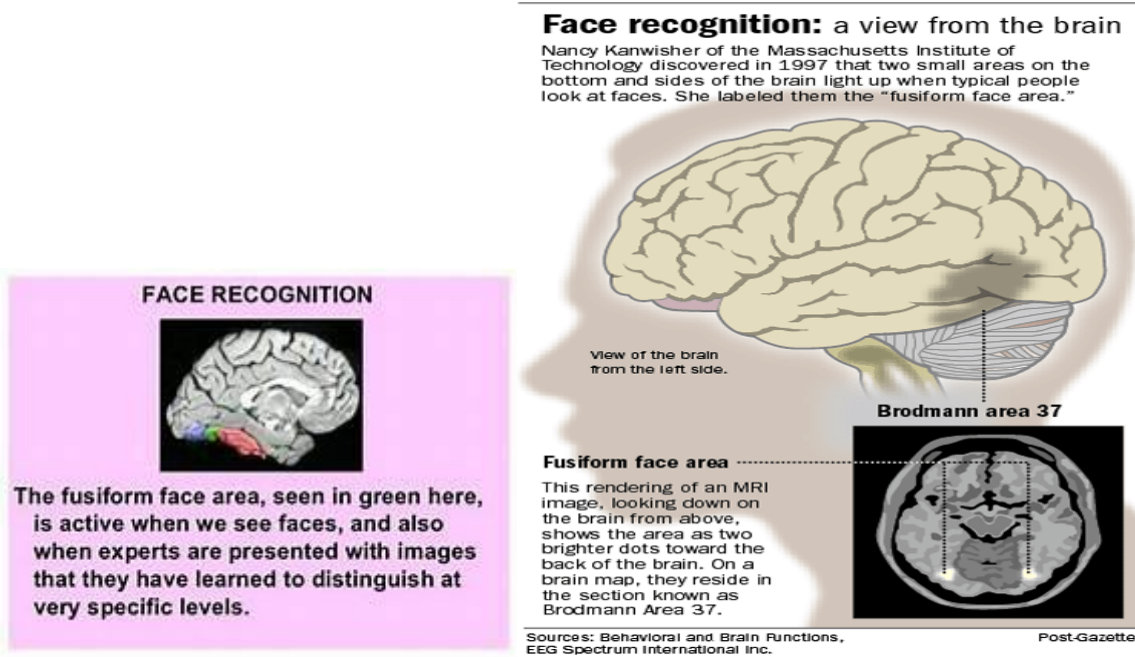
In their study, Gulsum Akdeniz, Sila Toker, and Ibrahim Atli<sup>6</sup> locate areas in brain that have vigorous activities during manifestation of Pareidolia . They summarize their findings as follows: -

*“Functional Magnetic Resonance Imaging (fMRI) scans were performed on 20 healthy subjects under real-face and face-pareidolia conditions in National Magnetic Resonance Research Center (UMRAM), Ankara, Turkey from April 2016 to January 2017. FSL software was used to conduct analysis to identify the brain areas activated during real-face and face-pareidolia processing and the following results were obtained : -Under both the real-face and face-pareidolia conditions, activation was observed in the Prefrontal Cortex (PFCX), occipital cortex VI, occipital cortex V2, and inferior temporal regions. Also under both conditions, the same degree of activation was observed in the right Fusiform Face Area (FFA) and the right PrefrontalCortex.*

#### ***The following conclusions were drawn from the study:***

*The present findings suggest that, as in real-face perception, face-pareidolia requires interaction between top-down and bottom-up brain regions including the Fusiform Face Area and frontal and occipito-temporal areas. Additionally, whole-brain analyses revealed that the right Prefrontal Cortex played an important role in processing real faces and in face pareidolia (illusory face perception), as did the FFA.”*





Picture 7: Fusiform area of brain which gets activated during Pareidolia and also during real face recognition

Thus we see that the brain areas which capture real face are the ones that get activated when we see complex entropic pictures and these brain areas extract a meaningful face from the complex entropic image which we are looking at.

Brain does fool us during pareidolia but this does not harm our body in any way; it only provides us an amusement.

Let us now explore the origin of the word Pareidolia.

### Evolution of Pareidolia

The word Pareidolia was derived from the Greek words *pará* (παρά, "beside, alongside, instead [of]") and the noun *eidōlon* (εἰδῶλον, "image, form, shape").<sup>7</sup>

The German word *Pareidolie* was used in articles by Karl Ludwig Kahlbaum—for example in his 1866 paper "*Die Sinnesdelirien*"<sup>8</sup> ("On Delusion of the Senses"). When Kahlbaum's paper was reviewed the following year (1867) in *The Journal of Mental Science*, Volume 13, *Pareidolie* was translated into English as "pareidolia", and noted to be synonymous with the terms "...changing hallucination, partial hallucination, [and] perception of secondary images."<sup>9</sup>

A blog in LEITNER STUDIOS<sup>10</sup> has following to say with regard to evolution of PAREIDOLIA-There has been scientific evidence supporting the theory that as humans, our brains are programmed to instinctively recognize faces primarily. The oldest artefact ever found is the Waterworn pebble, from Makapansgat South Africa, dating back to 3,000,000 BC, which resembled a human face. It suggests that a humanoid found this unaltered pebble and found it significant enough to pick up because of its close resemblance to a face.

Many believe that all artists have a heightened sense of *Pareidolia*. For centuries artists have been using this technique for creating artwork. Although the term "*Pareidolia*" has only been around since 1994, there have been many terms coined over the years that sought to define pareidolia.

Many of the definitions can bias either towards "chance/random or destiny/divinely ordained" (Abstract Extractionism). In 1754, the term *Serendipity* was invented by Horace Walpole, meaning a "happy accident". Throughout history the terms evolved to better describe this phenomenon- 1785, Cozen's New Method; 1875-1961, Car Jung's Synchronicity; 1930's, Dali's Parnoiac-Critical Method; and in 1958, Klaus Conrad's Apopheni.

All of the definitions mean basically the same thing, each with their own bias, whether it be bias towards a state of mind, or bias to the self.

Leonardo Da Vinci was a strong believer of pareidolia, as he states in his journal: "If you look at any walls spotted with various stains or with a mixture of different kinds of stones, if you are about to invent some scene you will be able to see in it a resemblance to various different landscapes adorned with mountains, rivers, rocks, trees, plains, wide valleys, and various groups of hills. You will also be able to see divers combats and figures in quick movement, and strange expressions of faces, and outlandish costumes, and an infinite number of



things which you can then reduce into separate and well- conceived forms”.

In the contemporary art world artists that take part in this process are now considered Extractionists (term dated in 2000) or Abstract Extractionists (2005). Salvador Dali believed the paranoiac-critical method to play a key role in the creation of surrealism. Dali saw this process as an extension of the self and aimed for “systematic confusion”, which sought to create a new order, taking unrelated elements from the external reality to create a space that is uniquely his own. Dali states that “The moment is at hand when, by a process of a paranoiac and active character, it is possible to systematize confusion and thus help to discredit completely the world of reality” (Finkelstein 60). He believes this is the absolute best way to hone his skills of illuminated delusion, as he so boldly states in the first issue of *Le Surrealisme au Service de la Revolution* that the concept of paranoiac-critical is “the most precise and comprehensive statement of purpose with regards to paranoiac process” (Finkelstein 60) Max Ernst did not believe this was the best method of extraction. He instead believed the best method of practical application lay within frottage- a technique developed by Ernst in which the artist creates a rubbing over a textured surface. It can be left as is, or is used as a basis for further refinement (Finkelstein 59).

There are many contemporary artists exploring pareidolia, one being Ismael Cavazos, the inventor of the term “abstract extractionism” in 2005. He resides within Austin and Houston, Texas. Cavazos is primarily interested in scriblism, and using automatism as means of extraction. The other half of his work is sculpting away parts of a peanut, finding images like a bat, faces, and potted plants.

In the year 2000, Rob Nye, invented the term “extractionism” as a term to describe how his work reflects pareidolia. He received his BFA from the university of Southern California, and studied at L.A Art center. He worked as a film producer, a senior advertising executive, and a creative director for thirty years before becoming a professional artist to explore Extractionism with his painting. He has displayed his work in national and regional competitions, and had solo exhibits in San Francisco and California. He believes his dyslexia enhances the images his mind projects onto surfaces. “His work is very abstract and bright, Nye creates his work by extracting human and natural forms he sees embedded in tiny bits of weathered stone and metal. His perceptions are then translated into large scale paintings using a unique, self-developed process combining oil paint, ink dye, oil-based pastels, and high gloss acrylics to produce images”(Studio 47).

As you can see, *pareidolia*, or *Abstract Extractionism* plays a huge part in many artists' lives and will continue to do so until the test of time. The term may continue to change over the centuries, but it will always be a way for one to find truth within themselves and create new order.

Summing up we could say that Pareidolia as a phenomenon has been with humans since time immemorial even dating back to 3,000,000 BC when oldest artefact were found- the Waterworn pebble, from Makapansgat South Africa, which resembled a human face. So Pareidolia was there in 3,000,000 BC and is there with us now and will continue with us in times to come. The nomenclature has kept on changing. In 1754 we termed it to *Serendipity* a term coined by Horace Walpole, meaning a “happy accident”. Throughout history the terms evolved to better describe this phenomenon- 1785, Cozen’s New Method; 1875-1961, Car Jung’s Synchronicity; 1930’s, Dali’s Paranoiac-Critical Method; and in 1958, Klaus Conrad’s Apopheni. In current times the term Pareidolia came into existence in 1994 which is replaced by Ismael Cavazos, who called it “abstract extractionism” in 2005.

Abstract extractionism it is, how else , the current modern art teases the brain to extract a meaning out of charotic splash of colours .

Extracting meaning out of complex scenery is the essence of Pareidolia.

So much so for the evolutionary history of pareidolia. We know Pareidolia as seeing faces out of complex scenes but there is another form of Pareidolia.

### **Forms of Pareidolia**

It is surprising that there is a wider term Apophenia which is a more general term for pareidolia. Apophenia is seeing patterns in objects and associating them with preconceived ideas that one already holds. It’s a way of the brain trying to comprehend and make sense of things. Pareidolia, differs to apophenia in that it occurs when somebody may see a face or pattern in an object. However, people who experience Pareidolia, won’t take this as a sign or to mean anything to support their own ideas and beliefs about a subject. When Apophenia and Pareidolia are combined, one will have a heightened experience. For example, one may find an image of Jesus in a piece of toast (this is Pareidolia). However, if they then go on to take this as a sign that God is communicating with them, then this is apophenia.<sup>11</sup> We have so far understood the meaning of Pareidolia, understood that it is a subset of a general term Apophenia, got acquainted with its causes, learned its evolution process and had a peep into the activities triggered by it in our brains. We also know that it does not harm our body and is not a negative thing but is only a harmless distorted perception. But does it do good to us; does it have some positives attached to it. Maybe it has.

Let us explore positive aspects of Pareidolia; how it does help the mankind: -

**Positive side of Pareidolia**

One of the major benefits Pareidolia has delivered to mankind is its contribution to field of knowledge or should we say to the scientific fields.

A paper published in Feel good<sup>11</sup> talks about positive contribution of Pareidolia in the field of Psychology. It contributed significantly to the field of Psychology in developing a test called the Rorschach inkblot test as a way of trying to understand personality and emotions. The test was developed by Herman Rorschach in 1921 and involves a series of ten ink blots in different colours and patterns. Many psychologists believe that this test can be used to understand someone's psyche. Ink is dropped on a piece of paper; the paper is folded in half and the person being tested must then describe what they see. The answers they give is supposed to indicate what sort of personality they have.

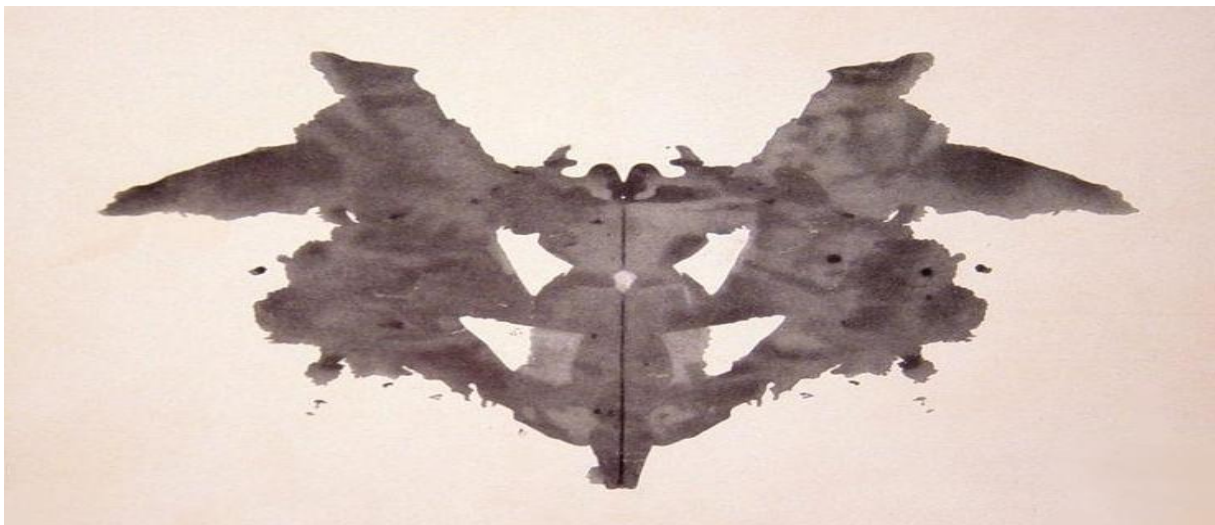
A sample test by Dr Stephen Harris<sup>12</sup> which is submitted on line is provided below where there are 10 pictures which are presented to the person being tested and he /she is asked to choose answers from a set of answers which he/she thinks is closer to his/her perception and the responses are used to arrive at an understanding of his / her emotions and psyche.

**Rorschach Inkblot Test**

How to: The Rorschach Inkblot Test consists of ten images. The Rorschach Inkblot Test process is quite easy. For each image you will need to select which description of that image. Disclaimer: This version of the Rorschach Inkblot Test test is provided for educational purposes only. Medical or professional advice can be provided only by certified practitioners, you may not use this test for those purposes.

**Rorschach Inkblot Test 1**

Please select what you see first and/or second in this Inkblot...



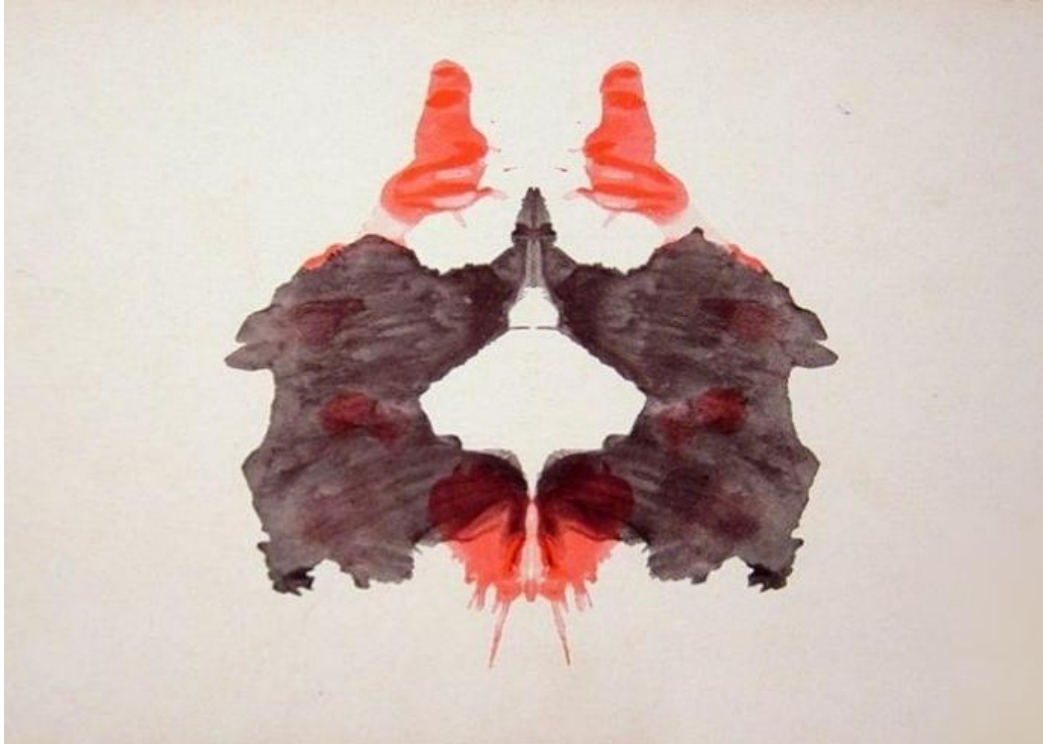
**1st 2nd**

- An army or navy emblem
- Crumbling cliffs
- A bat
- Nothing at all
- Two people
- A pelvis
- An X-ray picture
- Pincers of a crab
- A dirty mess

- Part of my body
- Something not listed here

**Rorschach Inkblot Test 2**

Please select what you see first and/or second in this Inkblot...



**1st 2nd**

- A bug somebody stepped on
- Nothing at all
- Two scottie dogs
- Little faces on the sides
- A bloody spinal column
- A white top
- A bursting bomb
- Two elephants
- Two clowns
- Black and red
- Something not listed here

**Rorschach Inkblot Test 3**

you see first and/or second in this

Please select what

Inkblot...

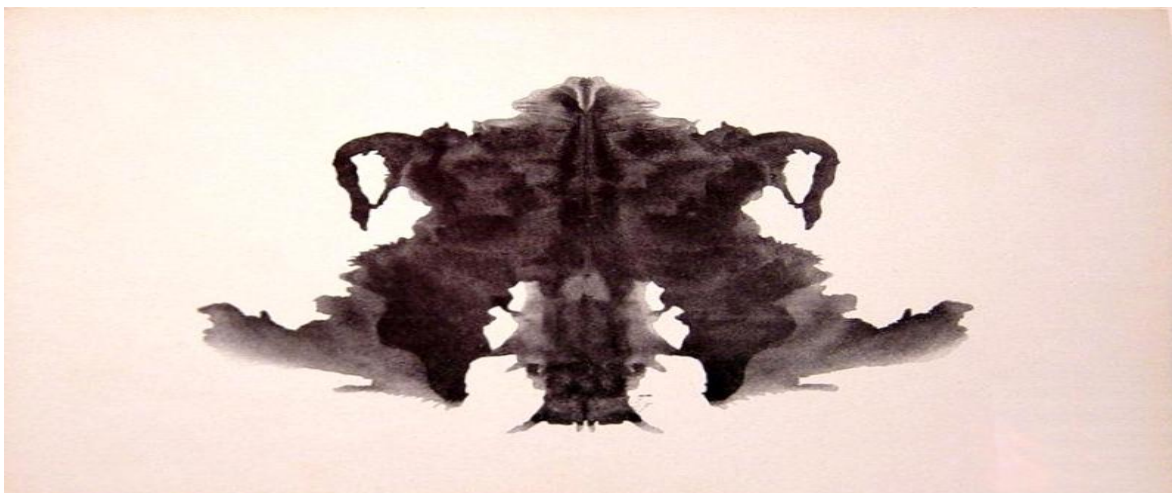


1st 2nd

- Two birds
- Meat in a butcher shop
- Two men
- Part of my body
- Red and black
- A colored butterfly
- Spots of blood and paint
- Monkeys hanging by their tails
- A red bow-tie
- Nothing at all
- Something not listed here

**Rorschach Inkblot Test 4**  
you see first and/or second in this Inkblot...

Please select what





**1st 2nd**

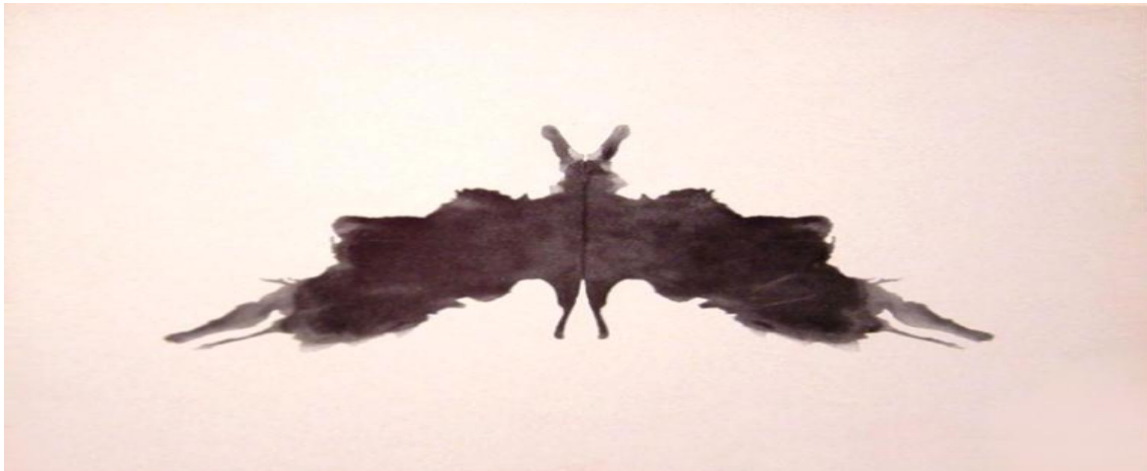
- Head of animal
- Lungs and chest
- A nasty mess
- A pair of boots
- Black smoke and dirt
- Nothing at all
- A man in a fur coat
- An animal skin
- A big gorilla
- An X-ray picture
- Something not listed here

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**Rorschach Inkblot Test 5**

Please select what you

see first and/or second in this  
inkblot...



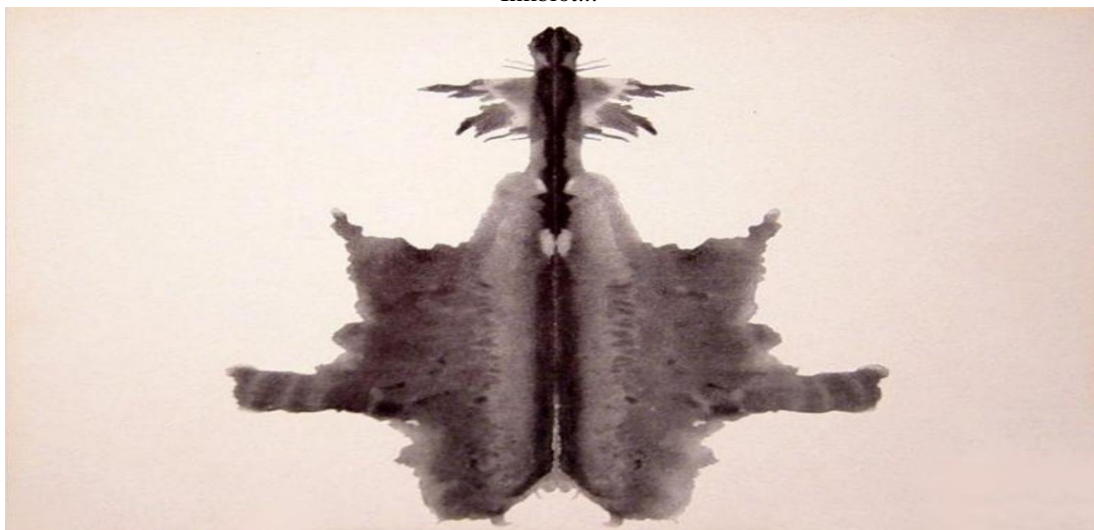
**1st 2nd**

- Nothing at all
- An alligator's head
- A smashed body
- A fan dancer
- An x-ray picture
- Legs
- A bat or butterfly
- Lungs and chest
- Black clouds
- A pair of pliers
- Something not listed here

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**Rorschach Inkblot Test 6** Please select what you see first and/or second in this

Inkblot...



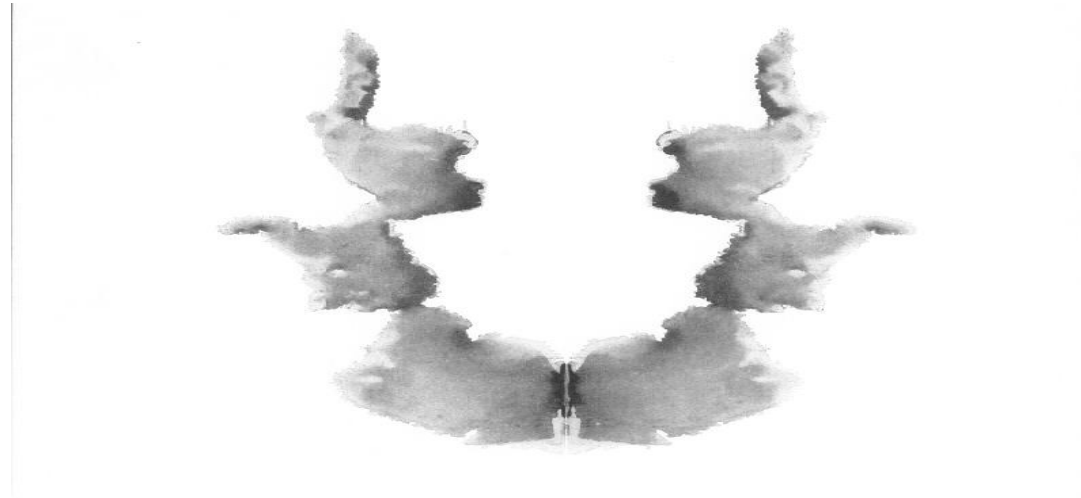
1st 2nd

- Two kings' crowns
- An x-ray picture
- Sex organs
- A totem pole
- A fur rug
- Mud and water
- A polished post
- Nothing at all
- A turtle
- A gray smudge
- Something not listed here

**Rorschach Inkblot Test 7**

you see first and/or second in this Inkblot...

Please select what



1st 2nd

- Smoke or clouds
- Two women talking

- Part of my body
- Animals or animal heads
- Nothing at all
- A map
- Dirty ice and snow
- Lamb's tails, or feathers
- An x-ray picture
- Bookends
- Something not listed here

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**Rorschach Inkblot Test 8**

Please select what you

see first and/or second in this  
Inkblot...



**1st 2nd**

- Flowers or leaves
- An x-ray picture
- Nothing at all
- Pink, blue and orange
- A horseshoe crab
- A colored coat of arms
- Fire and ice, life and death
- Two animals
- Blue flags
- Parts of my body
- Something not listed here

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**Rorschach Inkblot Test 9**

Please select what you see first and/or second in this Inkblot...



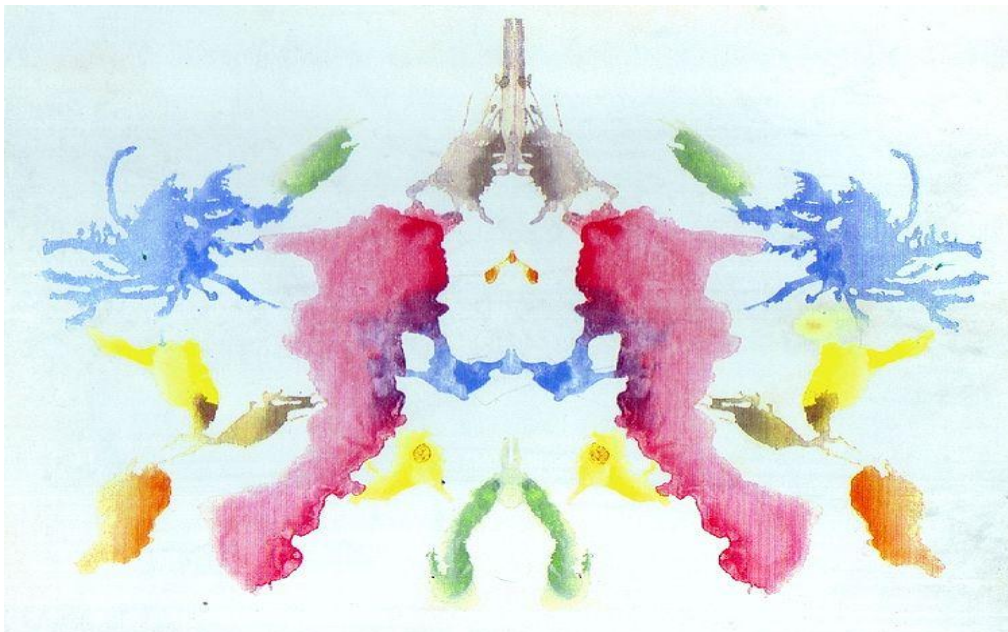
1st 2nd

- Red, green, and orange
- Sea horses, or lobsters
- Flowers or underwater vegetation
- Parts of my body
- Smoke, flames, or an explosion
- Deer or horns of a deer
- Nothing at all
- Two people-witches or Santa Clauses
- Bloody clouds
- A candle
- Something not listed here

**Rorschach Inkblot Test 10**

Please select

what you see first and/or second in this Inkblot...





**1st 2nd**

- Two people
- Split paint
- A Chinese print
- An x-ray picture
- Red, blue, or green
- Spider, caterpillars, crabs and insects
- Parts of my insides
- A colored chart or map
- Nothing at all
- A flower garden or gay tropical fish
- Something not listed

The above test based on Pareidolia has come very handy in understanding emotions and psyche of individuals and is a powerful tool in Psychology.

Apophenia the general broader terms encompassing Pareidolia has come to rescue of Parapsychology also by bringing clarity in some paranormal events. According to Peter Brugger, from the Department of Neurology at the University Hospital in Zurich, high levels of dopamine increases the likelihood of experiencing apophenia and can also result in the belief of ghosts and paranormal activities.

Matter of fact is that Pareidolia was found to be the reason behind perception of ghosts / spirits—my example of seeing my dead mother is an example. To put things in proper perspective, I shall have to bring in my research on a topic, “Paranormality-Myth of Reality” which will bring more clarity on how the concept of Pareidolia interfaces with paranormality which is studied under Parapsychology.

Let us explore this aspect:-

***Parapsychology and Pareidolia***

Parapsychology is beyond Psychology. Psychology studies human behaviour in normal situations where humans perceive through known five senses- seeing, smelling, hearing, tasting and touching but when perceptions occur without the use of these known five senses, Parapsychology takes over. Psychology deals in such phenomena, for example, Telepathy is learning what is going in someone’s mind without using normal communication channel-in other words it is mind to mind connection; Clairvoyance is seeing without taking help of eyes—i.e., seeing through mind’s eyes; Precognition is mind’s capability of coming to know future happenings, Psychokinesis is influencing things with the power of mind i.e., effect of mind on matter. It also deals in life after death and investigates whether ghosts/ spirits exist and can there be communication with dead.

From time immemorial the incidents happen spontaneously where above phenomena manifest. Literature is filled with incidents where person sitting miles away is able to learn that his loved one is in peril. One profound telepathic experience is that of Hans Berger, inventor of EEG. While learning horse riding, he was thrown off to the ground by the angry horse and he was about to be crushed by an approaching chariot but was miraculously saved when the chariot stopped just few inches from him. The trauma he felt sent ripples to his sister residing many miles away and she insisted her father to send telegram to Hans to confirm his safety.

History is replete with instances of Clairvoyance, Precognition, Psychokinesis and life after death. These are paranormal incidents which keep on happening.

When I took my advanced certificate in Parapsychological Research from Australian Institute of parapsychological Research, I started researching these topics and I learnt that several of the incidents were not real and they were fraudulently produced to gain cheap popularity and stage shows were also performed to claim paranormal powers to earn fame and riches. And there were Skeptics who questioned truth behind the paranormal incidents. But huge number of spontaneous paranormal incidents are being reported throughout the world from time immemorial and the first-hand account of those from the people experiencing them found themselves at their wits end and the views got stronger that those incidents were real and could not be simply brushed aside as non-sense. My paper<sup>13</sup> examined whether Paranormality is a myth or reality. I examined the matter in an unbiased rational way and took cognizance whether the incidents could be explained in the realm of science to refute the claim that these were paranormal. Could these incidents happen through known perceptive channels?

It may appear that I am deviating from the main topic of Pareidolia but soon I shall connect. Pareidolia did come to my rescue when I was trying to explain that some apparent paranormal incidents may not be Paranormal and could have alternate explanation. Parapsychology talks about manifestation of ghost and spirits and from all parts of the world people have narrated incidents of seeing their dead loved ones or had some verbal communications with them. One possible explanation could be the aberrations in brain which make us see spirits / ghosts.

My paper<sup>13</sup> illustrated the point-Appearances of ghosts and apparitions have been baffling mankind. However there are views that these are not appearing in reality but may be result of some aberrations of mind.

Canadian neuroscientist, Mr Michael Persinger, had demonstrated that the application of electromagnetic field to temporal lobes of the brain could provide haunting experience

viz: perception of a presence of a person, or, a sensation of touch, when, in reality, there is no presence or no one has touched.

Mr Shangeand his team from Clarkson university in US, observed that fungal pore can cause perception of haunting. Supernatural perception can also arise from brain's reaction to

toxic substances -such as carbon mono-oxide, formaldehyde and pesticide. It is also suggested that fungal hallucinations caused by toxic mold could stimulate haunting related

perceptions. This may explain why ghosts sighting, often, seems to occur in older buildings. This means that toxic molds can trigger significant mental or neurological symptoms which

create perceptions, similar to, those reported during haunting experiences.

**Other paranormal happenings:** Infrasound ---audio frequency below the range of human hearing is also thought to be able to result in perception of bizarre sensations wrongly

interpreted as anomalous happening

**Pareidolia** is another phenomenon where mind is wrongly perceiving things---normal as well as Paranormal.

We have dwelt on what Pareidolia is and have also seen a picture which conveys two meanings Susana Martinez Conde<sup>14</sup> maintains that human brains are attuned to perceive faces – an entire region of the brain,

called Fusiform Gyrus, is dedicated to it. The face detection skill by this portion of brain, coupled with, our brain's compulsion to extract meanings from the sensory chaos that surrounds us, drives us to see faces where there aren't any.

**Pareidolia** is often taken as logical explanation for apparitions seen in vague forms in low illuminating environment. Pareidolia could be the reason, which, made me feel to see my

deceased mother (presumably an instance of After Death Communication). on the day my father expired. I had narrated this incident earlier in the paper but dwelling at length on this event will add to our awareness about

pareidolia so I repeat it here – Learning about his death, when I came out of ICU and glanced over the benches where relatives of other patients were sitting, I could not believe my eyes when I saw a lady resembling my

mother sitting there on the bench. I told this to my brother, and, he, also, exclaimed that Ma has come to take away daddy! But my sister did not experience this phenomenon. I think it was Pareidolia at work which created

an illusion in our minds (mine and brother's), so, our minds could perceive our mother through a wrongly morphed face of our mother on the lady's face because of external stimuli of thought. Sisters did not experience

it as there was no stimuli to her brain as we had not shared our feelings to them.

Thus, mind under external stimuli, can lead to perception of anomalous happenings which, actually, have not happened but is creation of mind under external stimuli. Pareidolia in this case came to my rescue for explaining

that seeing my dead mother was not a fact of reality but was manifestation of Pareidolia. So it was an evidence which went against Parapsychology and could be considered a factor that ghosts/ spirits do not exist.

I end this paper with a subtle observation --I wonder, why is it that we have evolved to experience the impossible. On one side our mind has helped to rid the world of terrible diseases through advancement of

medical science, put a man on Moon, and begun to figure out the origin of universe and on the other hand, the mind is capable of being fooled -- be it, Pareidolia or perceiving two things from one image. Mind's ability to

find imaginary patterns can relate to seemingly supernatural experiences. These can be the result of tripping of brain on having formed patterns which are imaginary and not having genuine instance of cause and effect.

Indeed, working of mind is mysterious and as seen above, it can fool us sometimes.

Lastly see beautiful literary usage of pareidolia in a quote by Adi where a realization occurs about fake love

emotion- "***Lately I have been seeing your face everywhere. In my waking hours. In my dreams. In my shirt's design. In my coffee mug. Little did I know I was suffering from Pareidolia, not Love!!***

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