The recent death in Delhi of a young “paranormal investigator” has once again brought ‘ghosts’ and ‘spirits’ and so-called ‘ghost hunters’ into the domain of public debate.

A 1977 book The Amityville Horror: A True Story, tells the story of a family who moved into a house and were terrorized by paranormal incidents. However, researchers later found more than 100 factual errors and holes in the story. Finally, a lawyer admitted that he along with the family staying there “created this horror story over many bottles of wine.”

Ghosts, spooky spirits, and the paranormal intrigue many and are also huge business. In Delhi recently, a young paranormal investigator who featured in many TV serials on ghosts and spirits was found dead in his house. Although after initial investigations the police have clearly said that it was a case of suicide, there are many who still claim that he was done in by “negative forces”.

Attempts to contact the dead go back to the early history of humans, with mediumship picking up in prevalence in the nineteenth century. Investigations during this period uncovered far-reaching misrepresentations – with some people using techniques utilized by stage mystical performers. The practice of looking for ghosts and talking to spirits still continues in the 21st century, with prominent misrepresentations. Ghosts, spirits and the paranormal have also shown up in innumerable stories, TV series, movies, etc.

What does the word ‘paranormal’ precisely mean? If the word is broken down, then Para implies beyond and Normal, all that is experimental and can be clarified. In other words, it is an experience that does not fall under the ordinary logical clarification range. Paranormal is something that cannot be explained in the context of laws and nature and reason as we at present understand them. The term is at times substituted for the ‘occult’ from the Latin occultus, which means shrouded in mystery.
The possibility that the dead stay with us in the form of souls or spirits is an old one, and one that offers numerous individuals consolation. And this emotional connect leads them to believe that the deceased is searching for them.

The vast majority has faith in ghosts as a result of individual experience; they have “seen” or “sensed” some unexplained presence. Over the past many years we have heard stories about abnormal wonders, and numerous claims of examination of paranormal cases. There is, however, no hard proof yet that even a single ghost has ever existed.

If you are acquainted with the historical backdrop of ghost stories and spirit chasing, and have researched reports of numerous paranormal investigators, you would be bound to dismiss any claim today that a ghost has been spotted or that a building is spooked by an evil spirit without doing an individual ground level examination. Since the current scientific experimental confirmation or evidence has failed to verify the presence of a single ghost, lake creature, soul, or alien, the probability of the claim being genuine is thin. So, being a paranormal denier appears to be a great deal more sensible than being a genuine adherent, or tolerating a ghost story without examining it.

Beliefs in the Paranormal

There are many factors that contribute to the folklore of the paranormal beliefs, like mental imagery, psychological problems, coincidences, hidden causes, and fraud.

As indicated in an examination by Christopher H. Whittle (2004) in his Skeptical Inquirer article, “Development of beliefs in paranormal and supernatural phenomenon”, the inception of paranormal and supernatural beliefs develops when we are taught such beliefs for all intents from the earliest stages. Some are secular, some religious, and some crossover between the two. This cooperative energy of social influence has implications for science and skeptics. You cannot see a ghost until somebody has taught you about them. Countervailing impacts, experiential information, and learning of practical impacts have little effect on paranormal beliefs since they are applied after the belief is set up through social and familial power.

Benjamin Radford (2014) brought up in his article “Are ghosts real? Science says N-o-o-o-o”, (http://www.livescience.com/), that it is generally claimed that Albert Einstein recommended a scientific premise for the presence of ghosts: If energy can neither be created nor destroyed, it simply changes from one form to another then what happens to the body’s energy after the death of a person? Could that by any means get transformed into a ghost or considered to be a spirit? But if you try to comprehend the issue through the lens of fundamental science, the answer is exceptionally clear. After a human dies, the energy in his or her body goes where all creatures’ energy passes into – the environment. The energy is discharged as heat, and flows into creatures that feed on the human remains and the plants that grow all around and assimilate the elements. Hence, there is no ‘energy’ discharge from the body that survives after the demise.

It is humans who have given rise to concepts such as ghosts and spirits and who keep propagating such ideas through stories, films and TV soaps. Many fall prey to such visualisations without going into the logical aspects of the occurrence. But more than that it is the so-called “paranormal investigators” who rather than giving closure to such issues further confound the understanding of the common man through bizarre explanations or misrepresentation of scientific facts and concepts.
**Paranormal Investigators**

In paranormal investigation, the approach of the investigators also differs, which has a bearing on the final outcome. Often the paranormal team has a certain agenda that decides their investigative approach. Based on different perspectives and approach, the paranormal investigators can be grouped into:

- **Faith-based groups**: These groups approach the claims through the spiritual lens, be it mainstream religion, Occult, Pagan, or Spiritualist perspectives. The main objective is to help the living ones ‘haunted’ by those who have departed, and also to seek the existence of departed ones and help them. This old paradigm uses Psychics and Mediums. Faith-based investigators prioritize spiritual aspects and frame their philosophical approaches in the metaphysical.

- **The Scientific Approach**: The scientific approach is open-minded. A scientist investigating paranormal activities tries to falsify, not verify the hypothesis on the basis of scientific reasons. A scientific paranormal investigator does not assume that whatever he or she is investigating is haunted. He attempts to discover the cause/causes of the so-called paranormal experience and provides a natural and reasonable explanation for whatever seems to be unusual. It is based more on the technological and relevant evidences and science behind them. A good scientist must be a skeptic, willing to investigate the truth; no good scientist is a denier.

- **Pseudoscientific Paranormal Investigators**: Those who are very unscientific and uncritical in their approach are termed as pseudoscientific paranormal investigators. They do not perform any preliminary investigations and historical research and are more often equipped with instruments like EMF, paranormal detectors, audio and video recorders, EVP, thermal recorders, radiation detectors and Ouija boards, which they use for ‘identifying’ ghosts or spirits, rather than as tools for documentation. They define spirits as non-physical forms of energy wandering in the cosmic plane or the supernatural world and which have their unfinished business in the natural world. Their aim quite often is to prove the existence of life after death or leave behind doubts in the minds of viewers and readers without answering questions logically and with a finality. Because that is what ensures them continued business and fame.

**‘Tools’ of Paranormal Detection**

Today, hundreds of ghost hunting societies and freelance investigators exist across the continents, going into reportedly ‘haunted’ places to get a glimpse of a ‘spirit’ and capture it in video or still photographs. Most paranormal investigators do not have a real understanding of the scientific methods and proper investigation techniques. That is the reason why even after years of research there is no hard evidence yet that a single ghost exists.

The tools and methods used for ghost hunting are not much reliable. The less scientific the methods used, the more chance of the researcher getting the evidence to support the presence of a ghost.

The tools that are normally used by the paranormal investigators for the scientific investigation of the haunted places are very inappropriate for the detection of non-physical entities and so-called spirits. We cannot conceive an energy form that manifests itself according to our senses as a human or animal form under certain conditions. Most investigators claim to use the most high-tech scientific methods such as Geiger counters, EMF detectors, ion detectors, infrared cameras, EVP recorders, sensitive microphones, etc. However, most investigators are not aware of the nature and limits of their technical equipments.

Let us have a look at the scientific principles on which these instruments are based and how they work. For example, a Geiger counter is an instrument that detects the radiation involving the conversion of atoms or molecules into ions. A Geiger counter cannot detect a ‘ghost’ unless it is made up of atoms and emits sub-atomic particles. Do we have any evidence that ‘ghosts’ are made up of atoms?

Some investigators use dowsing rods. These are only wooden or metallic sticks that are supposedly used to locate water, mineral, gold, oil, etc. They are of no use in locating physical objects, then how can they prove to be ‘ghost’ detectors?

Electronic Voice Phenomena (EVP) is recording alleged communication by ‘spirits’ through voice recorders and other electronic devices. Paranormal investigators use hand-held voice recorders to capture voices of ‘paranormal’ origin. They roam around in the room or say haunted house and address the supposed spirit. Sometimes certain noises are heard. But the source of the sound can be anything – a cat, a human, an open window, rustling of leaves and so on. Thus, the determination of the origin of sound in a dark room can be difficult.
FEATURE ARTICLE

The Archeological Survey of India has banned entry into the area before dawn and after sunset, not on the grounds that the spot is spooked by ‘spirits’, but because of the danger of the wild creatures and snakes that may come into the premises of the fort from the neighboring Sariska Tiger Reserve, close to Bhangarh.

‘Spirits’ are most often referred to as “energy” or as a form of energy. However, the form has never been clearly described and it presupposes that ‘ghosts’ emit energy. A camera or an infrared camera is inappropriate tools to capture the presence of any paranormal being. Infrared cameras are used to detect lower-frequency wavelength, thus detecting variations in heat and not light. Heat is far less transient than light; if we turn off a light switch in a closed room, the area goes dark almost instantly. But if we turn off a source of heat including body heat in an area or room, the heat may remain long after the source has been removed. This can seem mysterious to amateur ghost hunters.

EMF meter (Electro-Magnetic Field meter) identifies electromagnetic radiation. It can detect objects in the physical world that emanate electric and magnetic field. But how do such apparitions being non-physical emanate EM waves? Apparition seekers utilize the meters to search for peculiarities in the EM signals, apparently brought on by a ‘soul’ being available. So-called specialists say that high electromagnetic field frequently associates with encounters of haunting, yet that is an estimation of the spectator and not something confirmed by research.

Benjamin Radford (2010) in his Skeptical Inquirer article “Ghost-Hunting Mistakes: Science and Pseudoscience in Ghost Investigations,” talked about the utilization of improper and unscientific examination techniques. Many ghost seekers use Geiger counters, EMF detectors, ion detectors, infrared cameras, and sensitive microphones, he said. But until somebody can reliably exhibit that ghosts have certain quantifiable qualities, gadgets that measure those attributes are insignificant, he further wrote.

Science-based paranormal investigators need to examine their tools, methods and results to call the investigations completely science based. Very ordinary events can be and indeed have been mistaken for extraordinary ones, and the main challenge for any ‘ghost’ investigator is separating the facts from a jumble of myths, mistakes, and misunderstandings.

A genuine paranormal examiner dependably admires the actualities that are open-minded, without being one-sided by any pre-judged or pre-conceived ideas. An experimental Paranormal Investigator does not accept that what he or she is exploring is spooky. The purpose of doing an examination should be to research cases of odd phenomenon and endeavor to find the cause or reasons for the obviously paranormal encounters. The objective should not be to demonstrate or negate the presence of anything specifically.

Paranormal Evidence?

There are numerous spots in India that are supposed to be ‘haunted’. Be that as it may, it needs a logical reason to trust them.

Take for instance, Bhangarh near Alwar in Rajasthan, a standout amongst the most renowned haunted places in our nation. Ever thought, why anybody would want to visit that spot? Despite being located near the Aravalli hills, it does not depict the picture of a hill station. Heat sears the whole of Rajasthan for around eight months of the year. There is no architectural uniqueness in the fort or temples as these are in ruins. Tourists get pulled in to the place because of the innumerable spooky stories that have been floated about the supposedly ‘haunted’ village. There are numerous stories about ghost encounters and each individual has his or her own particular rendition of the same. The Archeological Survey of India has banned entry into the area before dawn and after sunset, not on the grounds that the spot is spooked by ‘spirits’, but because of the danger of the wild creatures and snakes that may come into the premises of the fort from the neighboring Sariska Tiger Reserve, close to Bhangarh.

There are numerous other cases and stories in India like the one of Dumas shorelines of Gujarat which is said to be spooky because of the fact that there is a cremation ground close to it and the shoreline sand is dark (black). Is the dark shade of sand an uncommon phenomenon?

Then in 2014, the news flashed of the Karkardooma court complex in the eastern part of Delhi being spooked by a white shadow that used to turn on all the PCs in the midnight. Later, it was found that the PCs had self-programming software installed in them which turned on the PCs at a particular time.

Richard Wiseman, Professor at the University of Hertfordshire, in his interview with Live Science (2011), discussed about his investigations conducted at Hampton Court Palace, London and Edinburg in Scotland, where he asked people about the locations that seemed to be ‘haunted’. Most people picked the same locations as these areas were physically colder – however, this was not because of the presence of ‘spirits’ but because of thermal patterns.
In some cases, people heard a low-frequency sound, which could be brought about by the rumble of traffic and wind across an open window. Furthermore, these spots look scary because they are dark and our brain has evolved to keep us out of dull places. Richard Wiseman said that he had worked for about twenty years in the field but never seen anything that convinces him that any of the stuff related to the paranormal is true.

The stories of spots being spooky and individuals encountering paranormal entities are spread frequently by expressions of mouth. Experimental exploration by paranormal examinations does not establish any firm framework for the genuine cause or claim for the presence of apparitions or spirits. They only beat around the hedges. The gathered connections among phantoms and electromagnetic fields, low temperatures, radiation, and odd photographic pictures are based on just guesses and unproven theories.

Scientific Confirmation
According to Peter Brugger and Christine Mohr (2008), some paranormal beliefs emerge not from a misinterpretation of coincidences and irregularity but rather from an erroneous understanding of normal experiences perceived as outside strengths that allegedly control outer motor activities. The anomalous experiences are infrequent encounters that resist commonly established experimental clarifications and at times lead to concerns about the presence of a mental disorder.

An experimental test conducted by Olaf Blanke’s (2014) research group at École Polytechnique Fédérale De Lausanne (EPFL), Switzerland demonstrated that the paranormal exercises only exist in our heads. The study says that patients suffering from neurological or psychiatric conditions have repeatedly reported feeling a weird “nearness” or “feeling the presence of someone near”. EPFL scientists have succeeded in reproducing this alleged ghost illusion in the research center and reasoned that “strange feeling of presence of someone” really comes about because of modification of sensorimotor cerebrum signals, which are involved in creating self-awareness by coordinating data from our body’s position space and movements.

In their investigation, the team intervened with the sensorimotor inputs of members in a manner that their brains no more recognized such flags as having a place with their own particular body, and considered them as those of someone else. As per the study, schizophrenic patients often experience hallucinations or delusions related with nearness of an outsider or aliens or other paranormal activities. Researchers attributed these observations to a defect of mind circuits that integrate sensory data in connection to our body’s movement.

What science says
- The physician John Ferrier says sightings of ghosts are the result of optical illusions.
- French physician Alexandre Jacques says sightings of ghosts are hallucinations.
- Joe Nickell of the Committee for Skeptical Inquiry wrote that there was no credible scientific evidence that any location was inhabited by spirits of the dead.
- Limitations of human perception and ordinary physical explanations can account for ghost sightings; for example, air pressure changes in a home causing doors to slam, or lights from a passing car reflected through a window at night.

Commercial Aspect
Haunted places or palaces, and burial grounds are fascinating traveler stops in every town and city that can make a case for an old anecdote about overlooked tragedies. People are attracted to such destinations and want to hear the interesting stories that guides offer. It truly doesn’t make a difference to them if the apparition stories are genuine on the grounds that they appreciate seeing the excellence of old design and figuring out how individuals lived hundreds of years past.

TV programmes similarly telecast such destinations helping them to pull in more sponsors based on increasing eyeballs. Then there are numerous paranormal specialists looking for fame, money and fun. The frightening TV programmes are overstated and overtly dramatised to garner TRPs. Paranormal investigators bumping into each other shining flashlights and trying to make viewers believe that they are really experiencing something bizarre and surprising is all meant to grab the viewers’ attention rather than hunt for the truth.

And then there are gadgets and equipments that find eager markets among the so-called paranormal investigators. According to an article published in livescience.com, Tom Cook a British trader, says “scientific” paranormal units for the enterprising examiner start at £105 (US$180) and go up to £500 (US$850) for a custom phantom chasing pack. However, he conceded that there exists no device that can convincingly identify phantoms.

There are also a number of websites like TheGhostKit.com offering their apparently credible devices for apparition chasing. These kits contain different sets of equipments depending on the range of the kit. The assortments of instruments and units contain instruments like remote IR thermometer, real time spirit boxes, portable motion sensors, and parascopes. So, paranormal examination and paranormal researching toolboxes are a thriving business too.

Thousands of stories about strange phenomenon and many years of investigation for paranormal claims later, there is still no hard evidence yet that even a single ‘ghost’ or ‘spirit’ exists. Neither have the several other so-called paranormal experiences been scientifically confirmed.

So, the next time you encounter or listen to a spooky story, ask questions, analyse logically, and look for scientifically verifiable claims.

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