## The Lore of Levitation

Claims that some people have literally been able to rise above it all have brightened, if not enlightened, our cultural history.

### Gordon Stein

AN PEOPLE defy gravity and rise into the air unassisted? Can they fly through the air horizontally? Can they climb a rope up into the air and disappear from view? All of these abilities have been testified to at various times and with varying degrees of credibility, although they seem to defy the laws of physics.

These alleged phenomena fall under the general term of *levitation*. All types of people, from saints to spiritualists to Indian fakirs, have claimed to have been levitated. Some of their claims and experiences will be examined in this article.

First we consider the instances of levitation that do not purport to be anything but entertainment and illusion, e.g., the stage magician's act of levitating a young woman. There are any number of variations on this type of performance, and perhaps as many ways of accomplishing the illusion as well. In the most common form of the trick, a young woman is brought on stage and put into a "trance." She is then allowed to lie down on a sort of bed made up of a board and two supports, like sawhorses. There is a drape of fabric hanging down over the edge of the board. One by one the supports are removed. Eventually, there is nothing apparently supporting the board. Sometimes it rises and falls upon the command of the magician. Sometimes there is no board, but the illusion is accomplished by the use of two chairs across which the woman lies. Sometimes she is entirely covered by a cloth and then vanishes from the levitated platform upon the command of the magician, only to reappear from the wings or from the audience. The variations seem endless.

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In explaining the trick, one must be cautious. Both the large number of variations in the way the mechanism used can be designed and the fact that to reveal exactly how the trick works will destroy its entertainment value (to say nothing of my magician's oath) lead me to be hesitant about explaining it. In general, the principle involves a single strong support behind the platform upon which the woman lies. It is either fixed or mechanically liftable, usually with a noiseless hydraulic system. Sometimes wires from above are used. In all cases the mechanism is cleverly hidden and the passes by hoops of metal or other devices around the tables always just miss hitting the support. If the illusion is well staged, it can be quite convincing, even to the skeptic. Nevertheless, this form of levitation is admitted as trickery, and will therefore not be considered here any further. We want to concentrate upon those forms of levitation that promoters allege to be real.

Perhaps the most famous case of supposed levitation is the Indian Rope Trick. In 1919, rumors that this was a real, but rarely performed, event made a member of the British Magic Circle offer the then princely sum of 500 pounds to anyone who could or would perform the trick under carefully controlled conditions. Ads were placed in the *Times of India*, but there were no takers. The man who made the offer reluctantly concluded that the trick must be only a myth.

What was this purported trick? Well, as reported, usually second- or third-hand, a Hindu fakir, working outdoors in a level area, would have a crowd gather around, then throw a long coiled rope up into the air. The rope would stay suspended vertically, with the top of the rope almost disappearing from view. The fakir then told his young assistant to climb up the rope. The assistant did so, and soon was out of sight. The fakir then called him several times to come down. There was no response. Growing very angry, the fakir seized a knife in his teeth and then climbed up the rope after his assistant. Shortly thereafter various parts of the assistant were seen and heard striking the ground. Finally, the fakir descended the rope, his clothes bloody. The various limbs of the assistant were gathered up into a pile (or sometimes placed into a basket), given a kick by the fakir, and were miraculously reassembled into the live young assistant. The assistant arose or climbed from the basket and walked off unhurt. At least this was how the trick was reported, but never first-hand.

Yet the British magician who had no takers for his 500-pound offer may have been quite mistaken to conclude that the trick was a myth. Hindu fakirs are often illiterate, even in their native language, and in any case probably do not read the *Times of India*. Perhaps his offer was unknown to the people who mattered. One school of thought says that the Indian Rope Trick does exist; and although it is rarely performed because of the difficulties and special skills involved, the actual trick is very much the way I just described it. All that differs is that it is usually performed at dusk, and there are some small hills in the background. The rope is usually thrown up several times before it remains upright. A wooden ball with several holes drilled through it

is attached like a weight to the thrown end of the rope.

So what could the secret of the Indian Rope Trick be? Well, it lies in carefully choosing the site and the time of the performance, plus considerable advance preparation and skill in distracting the audience. A site must be picked that has two hills, one on either side of the flat area seating the audience. A long black wire is stretched from one hill to the other, and pulled tightly, at least 30 feet above the ground. The trick is always performed at dusk, when the wire is invisible. Additional concealment of the wire is achieved by placing a number of electric lanterns—or bonfires, in the old days-around the audience to further obscure the view straight up. The first



few times that the wooden ball attached to the end of the rope is tossed into the air, nothing happens. The audience quickly loses some interest and begins to pay less attention. Finally, the fakir attaches a metal hook through one of the holes in the wooden ball, and throws the rope up to loop over the concealed wire. He makes sure it is secure, sometimes with the aid of an assistant at each end of the wire, and then sends the boy assistant up the rope.

The long robes of the fakir conceal a body harness that contains the limbs of a shaved monkey and a realistic looking dummy head. When these parts have been thrown down after the fakir ascends the rope, the boy assistant fastens himself to the harness under the robes of the fakir and is unseen as they descend. Once back on the ground, the fakir's other assistants gather up the monkey parts, the boy slips out from under the fakir's robes and takes his place in the basket, and the illusion is complete. Sometimes the rope is unfastened from the guy wire, sometimes the guy wire is released from its moorings, and sometimes the whole apparatus is left in place temporarily. The great skill required to climb the rope, make the switches, and divert the crowd's attention at the appropriate moments have made this trick so difficult to do well that it is rarely performed.

However, some hold that the trick as described above originated as a hoax perpetrated by a journalist in 1888. They believe that there never actually was an Indian Rope Trick. How can one prove that something did *not* exist? What is really needed is a new performance of the trick with videotape equipment present. In any case the Indian Rope Trick is a deceit and need concern us no further.

Modern claims of levitation have been made by the members of the



Alleged photograph of the Indian Rope Trick. The authenticity of this and similar photos is dubious.

Transcendental Meditation movement. They offer expensive courses they claim will enable a person to levitate a foot or so off the ground while in a full lotus position. They show photos of a small group of people, each a few inches off the ground. However, careful study of the photographs shows that the ground is heavily padded and that the people appear to have simply hopped up into the air for a second or two. When questioned, the participants admit that this is so, but add that they feel that with additional practice they could remain in the air for extended periods, although no one has yet achieved this ability. It is hard to know whether they sincerely believe this or whether they have been taken in by an aggressive sales campaign. It is safe to say that no one has vet demonstrated true levitation from the lotus position.

Moving to the realm of levitation in a spiritualist setting (i.e., during séances), we come to perhaps the most well known claim of a supposed unexplainable levitation. Perhaps the most famous physical medium who ever lived was Daniel Dunglas Home (1833-1886). Although Home was occasionally caught in a fraud, such as when he was found taking

his foot out of his shoe during a séance, he seems to have been remarkably skillful. Of course the fact that he never charged for his séances, although he did accept gifts and hospitality, made people less anxious to expose him. Home frequently did levitations. In a semi-dark room, he would appear to rise toward the ceiling. People said that they knew he had risen because they felt his feet at the height of their faces. If that is all they had to go on (in other words, if they saw only his feet), then we have a neat explanation of the supposed levitation: Home simply removed his shoes from his feet and placed them on his hands. Then he need only move his shoe-clad hands about in the air in the vicinity of the sitters' faces. They also often reported that his voice came from high up. This can be accomplished simply by standing on a chair before speaking. However, if the sitters could clearly see the rest of Home's body as he supposedly levitated, we have an entirely different situation, for which an explanation is more difficult. Home did not always conduct his

séances in the pitch dark that other mediums required, so observation of the whole body should have been a possibility. Suspiciously, Home did ask that lights be lowered when he was going to levitate.

Another form of levitation during Home's séances deserves brief mention—table levitation. Examination of the actual reports of such levitations shows that the risings of the table were uniformly reported to occur when people joined hands on the top of the table as they were seated around it. The table then began to rise, forcing the sitters to rise in order to maintain the unbroken circle of joined hands. If this was the case, there is a simple explanation for how it was done. Some mediums used a device consisting of a flat metal hook with straps that are fastened to the arm under the suit coat. When the hands were resting on a table, the hook could be engaged under the tabletop. When two people on opposite sides of the same table have engaged their hooks, the table, even a very heavy table, can be made to rise if the two confederates simply make some comment about the table rising and then get up themselves. This will cause the table to rise with them, and the others sitting around it will also rise, if it is made clear to them how important it is to keep the circle of hands unbroken. This is one way of doing this levitation, and it may have been employed by Home.

Home himself admitted that only one of his levitations occurred in daylight (in America, at the home of Ward Cheney in Connecticut in August 1852). Yet, unless Home has confused two accounts, F. L. Burr, who reported this levitation, says that it occurred in "a darkened room." Why Home would say it was in daylight (perhaps it was daylight outside) is not clear. However, one levitation did occur, he says, with four gaslights burning brightly. This, of course, implies that on the other occasions the levitations occurred in the dark.

We know the details of at least one other of Home's levitations (in 1859) from the pen of a disinterested observer, one J. G. Crawford. He informs us that the room was almost dark. Home then exclaimed: "I feel as if I were going to rise. I am getting up." As Crawford was only a few feet from Home, Crawford put out his hand toward him and felt the soles of both of Home's boots some three feet above the level of the floor. Crawford said he deduced that Home had risen from his voice. In other words, Crawford did not actually see Home's body in the levitated state. The previous comments about how this effect might have been accomplished seem extremely pertinent now. We also have the testimony of a Mr. Jones of Peckham (not further identified), who was present at a levitation of Home's in 1860. Jones claimed that Home said "I am rising," but that he could not see Home in the darkness. When Home was asked to come close to the window (it was dark outside) and he did so, they saw "his feet and a part of his legs resting or floating on the air like a feather, about six feet from the ground and three feet above the height of the table. He was then floated into the dark. . . . I saw his head and face at the same height as before [it is not clear at what height], and as if floating on air instead of water. He then floated back [into the dark] and

came down." Again, if Home were very clever at figuring out exactly what part of his body could be seen in the limited light, he could have presented only that part that would be visible in a horizontal position—by standing on a chair, for example, and bending forward or backward at the waist with his shoes on his hands.

Mrs. Lynn Linton's account of the same séance is interesting in that she did not actually see Home float, but says that his voice gave her the indication that he was levitating as he moved about the room. She does claim to have seen the shadow of his body "on the mirror as he floated along near the ceiling." The shadow she saw was not necessarily that of Home's body. Since the apparent height of Home's voice, plus the level at which his shoes were felt, seem to be largely responsible for the feeling among the audience that he had levitated, we may be able to explain Home's spiritualistic levitations as deception.

Perhaps the most famous of Home's levitations was the one that occurred in the presence of Lord Adare, Lord Lindsay, and Captain Charles Wynne in December 1868. This was the event reported by Adare in his Experiences in Spiritualism With D. D. Home (c. 1870). Adare reported that Home went into a trance, walked about the room, and went into the next room and opened the window. Lord Lindsay thought he knew what was going to happen and called out that the action was "too fearful." "He is going out of the window in the other room and coming in at this window," Lindsay cried. He later claimed he knew this through telepathic communication. Home then appeared at the outside of the window, opened it and entered the room. He then asked Adare to close the window in the other room. When Adare went there to do so, he found it open only about 18 inches. Adare expressed amazement that Home could have exited through such a small opening. Home then showed him how he could do it by horizontally shooting through the window head first and returning through the window of the next room the same way.

We are also told that the windows were 80 feet above the ground and that there was 7 feet between the two windows, with only a 4-inch-wide ledge between them. There was a wrought iron balcony outside each window as well. The 7-foot measurement was between the two balcony edges. Could this most famous of all levitations have occurred as stated?

An investigation of this event uncovers several internal contradictions within the document describing the event, as well as between that document and several other, shorter accounts. The date and the location of the levitation have been misstated. When these are unscrambled, other contradictions appear. For example, Adare wrote that the light from outside the window was bright, but there was actually a new moon on the night of the levitation. Furthermore, although the building in which this levitation occurred is no longer standing, there are photographs of it. These reveal that the two windows involved were only about 35 feet from the ground, rather than the 80 feet reported by Adare. More important, the two balconies were only

about 4 feet apart. So, there are several possibilities. Home (who had plenty of time alone in the building in which to practice this feat) could have jumped from one balcony to the other, or he could have simply opened the window in one room, sneaked under cover of darkness from that room to the window of the other room, stood on the *inside* ledge of the second window, and opened the window from the inside. Experiments have shown that in the dark it is very hard to tell if someone is inside of a window or outside of it. So, we are left with the distinct possibility that Home could have faked this apparent levitation.

We also know that Home had an unusually dominating relationship with the three witnesses, which could have influenced them to accept his suggestions that he was levitating out one window and in the other. Two additional facts about the incident should set off alarm bells. Home always told people that he had no control over his levitations. Yet he told Adare and Lindsay that he was going to go out one window and in the other. If Home could not control his levitations, it would seem to be a dangerous thing to try floating out windows. Second, why did Home tell everyone not to leave their seats and to remain in the one room while he went into the other? What would they have seen if they had looked in the other room? Would they have detected a fraud?

D. D. Home was not the only medium who claimed to be able to levitate, or who was reportedly seen to do so. Among others were W. Stanton Moses, Mrs. Guppy, Eusapia Paladino, and Willy Schneider. Although they were sometimes levitated while sitting in a chair, their levitations were otherwise similar to Home's. The chair levitation is difficult to explain. Without the account of a trained observer, who also could have examined the chair afterward, it is not possible to give a definitive explanation of how it was done.

The most perplexing of all the claimed levitations are those of Saint Joseph of Cupertino and Saint Teresa of Avila. Of course they are not the only saints who supposedly levitated. There are more than 200 saints who are reported to have levitated at least once in front of witnesses. The most recent was Marie-Francoise de Cinq Plaies, who died in 1791. Note that levitating saints have evidently gone out of fashion, as there hasn't been one (other than some of the sightings of the Virgin Mary) for nearly 200 years. Why this is so may become apparent when we examine some of the actual reported levitations of these saints.

Perhaps the most famous levitating saint was Joseph of Cupertino (1603-1663). There are supposedly 40 recorded instances of Joseph's levitating, including the time he flew up to the altar of the church from the pews, landed among the burning candles, and was badly burned. Joseph's most impressive reported levitation was the time he supposedly flew 70 yards from a doorway to the top of a 36-foot-high cross that his group of friars was constructing. He then lifted the cross into the air and flew with it to the site to which it was to be moved. When we examine the evidence for these levitations, however, we see (as Alban Butler in his Lives of the Saints [1756-1759] points out) that

## Claims of Levitation 'Miracles' in India

#### B. Premanand

The SKEPTICAL INQUIRER asked the Indian magician B. Premanand for his perspectives about the Indian Rope Trick and levitation claims in general. Premanand is chairman of an Indian national skeptics group and has exposed 1,146 claims of "miracles" in India. He toured and lectured in the United States in late 1988 and early 1989.—ED.

THERE ARE many stories behind all Indian magicians of the nineteenth and early twentieth centuries claiming that they did the Indian Rope Trick. Professor Vazhakkunnam, who taught me magic in the late 1930s, gave his version of how the trick may have been done, although he told me he never tried it. Vazhakkunnam said that perhaps it had been done before electricity came. His speculation was that it was done at night in the open where there were a lot of trees, so the metal wire could be tied horizontally to the trees and the rope suspended vertically on the metal wire. This helps the boy get lost in the foilage of the tree and come down unnoticed and hide in the basket.

The best levitation trick, even now, is done in the open, with people around. A person lies on the ground, and a large bedsheet hides him, except for his head, which pokes through a cut in the sheet. After the chanting of the mantras, the person slowly levitates up to about five or six feet, with the bedsheet around his body. This is done with two sticks that are hidden on the two sides of his body. (See sketch.) After the bedsheet is put over the body, the sticks are taken in the hands and slowly raised up, while the person also slowly rises, first sitting and then standing, with only his head protruding outside the sheet. Two curves at the ends of the sticks give the appearance of the person's feet. This is the simplest and most astonishing levitation and is done with just two sticks. It has been done for hundreds of years, and is still done today on the street or in an open field.

In 1977 when the Maharishi Mahesh Yogi came to India with his disciples and showed the trick of hopping in the sitting yoga position, we challenged him—as the teacher who teaches levitation—to fly from Old Delhi to New Delhi, about two miles. He agreed to do this the next day if we came up with 10,000 rupees (about \$1,000 U.S.) He thought we did not have the money. The next day, when we came with the money, he told us that Transcendental Meditation is not for demonstration purposes! He refused to do the levitation flight. Thus he was exposed. Mahesh Yogi has more than half a dozen helicopters in India for flying around the country. Why does he need them? He has never once shown himself flying.

This past year he has been charged in a court of law in India for having

Premanand's sketch of a popular levitation trick in India. Ĩ HEIGHT LEVITATING STANDING POSTURE STICKS ZCHAH WI TH that laver 压

Raising the rods makes the legs appear to be floating.

GROUND

money that was unaccounted for and being in possession of smuggled articles. He claims that if one percent of humanity would practice TM, the world would turn out to be peaceful, moral, truthful, and so on. But the practice of TM did not change Maharishi Mahesh Yogi! So how could it change the world?

these feats were not recounted by any eyewitness and were recorded only after his death. By then events could have been exaggerated and legends could have been entrenched. The problem with all testimony involving saints is simply that there are other motives involved than mere historical truth-telling. If Butler, a strong believer in the special qualities of the saints, could have his doubts about the accuracy of levitations reported by Joseph of Cupertino, perhaps some skepticism on the part of present-day inquirers is not altogether unjustified.

Saint Teresa of Avila, another well-known levitating saint, was a specialist in vertical levitations, as opposed to the horizontal ones of Joseph of Cupertino. Teresa (1515-1582) was a strange person by anyone's standards. She was extremely ill much of her life, and she perfected the art of mystical rapture. It was while in one of these raptures that Teresa would occasionally levitate. As she describes the sensation in her autobiography, it came upon her without warning. She felt as if she were being carried up on the wings of an eagle. Any attempt to resist the levitation was usually in vain, and was also quite exhausting. She usually found it best to just let it happen. Her hair would often stand on end during these raptures. A few times the nuns supposedly had to get Teresa down from a tree into which she had levitated. Again, although Teresa claimed in her autobiography that she had the power of levitation, eyewitnesses came forth only many years later, during the investigations prior to her canonization.

The connection between levitation and witchcraft should be mentioned. In the 1600s, levitation was looked on as a form of possession by the devil. The levitations of 12-year-old Henry Jones in 1657 were considered a sign that he was bewitched. Patrick Sandilands, a Scottish boy, also was considered bewitched when he reportedly levitated in 1720. Mary London was actually tried for witchcraft, partly because her levitations often placed her upon the roof of her house, or so she claimed. Some poltergeist cases also involve reported levitation, usually of small children.

The explanations for levitation have traditionally involved one or more of the following: divine grace (God recognizing special devotion in someone), the effects of demons or the devil, possession of some miraculous knowledge or "a word of power," electricity, magnetism or "odic" forces, a cantilever effect due to "pseudopods" that grew from the body and levered it up into the air, breathing exercises, and will power. They all seem inadequate. Part of the problem comes from the fact that a levitation requires overcoming the force of gravity. Unfortunately, we do not know if this is even theoretically possible.

There is a much more serious problem here. Electricity and magnetism have dual, opposed aspects (north versus south poles, positive versus negative charges), so it is theoretically possible for an object to repel another by the use of magnetism or electricity. We all remember that like charges repel each other. However, mass can only be positive. (An object in space may have no weight but it still has mass.) Therefore, it is even theoretically impossible, according to most physicists, for an antigravity device ever to be made on earth.





Reports of alleged devil-related levitations were collected by Joseph Glanvill in the seventeenth century.

In addition, many of the "levitators" themselves have said they did not understand what was happening to them and were unable to control the process in any meaningful way. This has not helped in the attempts to document the claims. There is very little information to go on. How reliable were the witnesses to the saintly levitations? How likely was it that D. D. Home used trickery? Can we trust the reports of other spiritualists who supposedly levitated? Could we be dealing with more than one phenomenon here and therefore need several different explanations? Without answers to these questions, it is a difficult, if not impossible, job. Olivier Leroy, author of one of the very few book-length studies of levitation, published in France in 1928, was extremely hesitant to draw any conclusions after writing 400 pages about the phenomenon. We can give up and accept the opinion of physicists who say antigravity is an impossible idea on earth, or we can hope that someone can produce clear-cut levitations repeatedly under proper conditions so that they can be carefully documented. Meanwhile, we can suspend critical judgment and let ourselves be entertained by magicians demonstrating the illusion of levitation—which will probably be as close to the real thing as anything else we will ever see.

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