

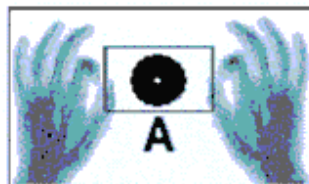
# Quantum Teleportation: Synchronicity and ESP

By Peter Fotis Kapnistos (2010)

Quantum entanglement or superposition is a phenomenon in which the quantum states of two or more objects are linked together — even though the specific objects may be spatially separated. Since quantum entanglement implies faster than light-speed interactions, it creates an experience of non-locality, or what Albert Einstein called “spooky action at a distance” that defies classical and relativistic concepts of space and time.

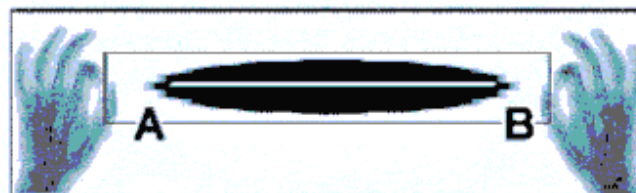
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## Spooky Action at a Distance



A singularity or point in space has only one position (A).

If space is stretched, the singularity appears as a string or filament with 'entanglement' end-points (A and B), which could be light years apart but would still communicate information instantly.



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“Quantum entanglement’ may sound like an awful sci-fi romance flick, but it's actually a phenomenon that physicists say may someday lead to the ability to teleport an object all the way across the galaxy instantly. It's not exactly the Star Trek version of teleportation, where an object disappears then reappears somewhere else. Rather, it ‘entangles’ two different atoms so that one atom inherits

**the properties of another. ‘According to the quantum theory, everything vibrates,’ theoretical physicist Michio Kaku tells NPR's Guy Raz. Kaku is a frequent guest on the Science and Discovery channels. ‘When two electrons are placed close together, they vibrate in unison. When you separate them, that's when all the fireworks start.’ This is where quantum entanglement — sometimes described as ‘teleportation’ — begins. ‘An invisible umbilical cord emerges connecting these two electrons. And you can separate them by as much as a galaxy if you want. Then, if you vibrate one of them, somehow on the other end of the galaxy the other electron knows that its partner is being jiggled.’ This process happens even faster than the speed of light, physicists say.” (“Scientists Take Quantum Steps Toward model Teleportation,” NPR, Aug 1, 2010)**



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- In 1982, a research team led by physicist Alain Aspect at the University of Paris initially verified that measurements performed on one quantum system instantly influence other systems entangled with the measured state, even if they are far apart.
- In 1993, Charlie Bennett and associates at IBM's Watson Research Center showed how to transmit quantum information from one point in space to another without traversing the intervening space. They called the technique “teleportation.”
- In 2003, researchers at the Faculty of Physics, University of Vienna, Austria led by Marcus Aspelmeyer successfully sent entangled photons to opposite sides of the Danube River, by using satellites to beam entangled photons to Earth.
- In 2007, a team led by Anton Zeilinger of the University of Vienna transmitted entangled photons some 144 kilometers (89 miles) between La Palma and Tenerife, two of Spain's Canary Islands, using a laser to create entangled pairs of photons and fire one member of each pair to a telescope of the European Space Agency (ESA).
- In 2009, researchers at the Joint Quantum Institute at the University of Maryland along with colleagues at the University of Michigan succeeded in teleporting a quantum state directly from one atom to another over a meter away. The scientists reported that atom-to-atom teleported information could be recovered with perfect accuracy about 90 percent of the time — and the figure could be improved.
- In 2010, a team led by Xian-Min Jin maximally entangled two photons using both spatial and polarization modes and teleported the one with higher energy through a ten-mile-long free space channel. They found that the teleported photon was still able to respond to changes in the state of the photon they held onto, even at that distance.

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## Brain Entanglement Memories

Modern teleportation research is also based on the psychological awareness of observing quantum entanglements. It is expected that "people will see photons that were entangled with each other." The stimulation of living systems awakens a somewhat "metabolic" quantum superposition. Dietmar Plenz and Tara Thiagarajan at the National Institute of Mental Health in Bethesda, Maryland, wondered whether complicated brain cell signatures might also link groups of neurons. To investigate, they analyzed neuronal activity using arrays of electrodes:

**“Subatomic particles do it. Now the observation that groups of brain cells seem to have their own version of quantum entanglement, or ‘spooky action at a distance’, could help explain how our minds combine experiences from many different senses into one memory. Previous experiments have shown that the electrical activity of neurons in separate parts of the brain can oscillate simultaneously at the same frequency — a process known as phase locking. The frequency seems to be a signature that marks out neurons working on the same task, allowing them to identify each other.”** ("Brain 'entanglement' could explain memories," David Robson, New Scientist, Jan 12, 2010)

Psychic powers and extra-sensory perception (ESP) are among the most significant unsolved phenomena at present, since belief in them is so common. ESP is frequently called the "sixth sense." It is sensory information that a person supposedly receives beyond the ordinary five senses of sight, hearing, smell, taste, and touch. Sir Richard Burton used the term ESP in 1870. The first controlled study of ESP was organized in 1882, when the Society for Psychical Research was founded in London.



In the 1920s a Munich specialist in medical and surgical eye problems, Dr. Rudolph Tischner, referred to ESP as the externalization of sensibility. In the 1930s the American parapsychologist J. B. Rhine at Duke University, Durham, N.C., popularized the term to include psychic phenomena related to sensory functions. Rhine was among the first parapsychologists to test ESP proficiency in the laboratory.

The term "psi," referring to extrasensory perception and psychokinesis, was coined by biologist Bertold P. Wiesner, and first used by psychologist Robert Thouless in a 1942 article in the British Journal of Psychology. In the 1970s, physicists Russel Targ and Harold Puthoff conducted experiments with psychics Uri Geller and Ingo Swann at the Stanford Research Institute (SRI) in Menlo Park, California. They felt that Geller, retired police commissioner Pat Price, and Swann had genuine psychic abilities.

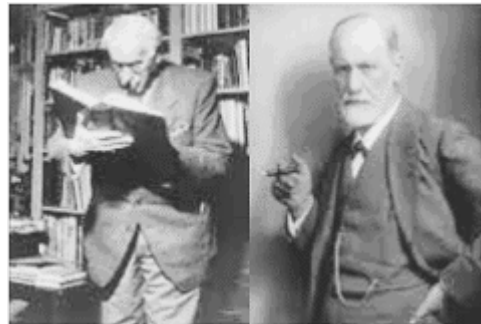
The CIA and the Defense Advance Research Projects Agency (DARPA), overseeing Andrija Puharich, allegedly worked with Geller, Price, and Swann to develop psychic powers for the military. The 1977 arrest in Moscow of Los Angeles Times reporter Robert Toth by the KGB, for taking a paper on telepathy and brain wave biofeedback,

proved that the Russians were also tracking top-secret ESP experiments. The US Navy from 1972 until 1995 supposedly conducted research in remote viewing. L.R. Bremseth, then a Navy commander, described it as a broad-based transcendent and asymmetrical research program. Scientists have examined many people who claim to have psychic powers, but results under controlled laboratory conditions have until now remained unclear. A 2008 Newsweek magazine article on paranormal experiences reported:

**“According to periodic surveys by Gallup and other pollsters, fully 90 percent of Americans say they have experienced such things or believe they exist.”** (“Why We Believe,” Sharon Begley, NEWSWEEK, Nov 3, 2008)

Swiss psychologist Carl Gustav Jung first described his idea of “synchronicity” in the 1920s. Sigmund Freud and Carl Jung first met in 1907 and had a significant influence on each other's theories. Synchronicity is the relationship of two or more seemingly causally unconnected events occurring together in a meaningful way. To be valid as synchronicity, the events must be unlikely to happen together by chance.

Jung introduced his concept as early as the 1920s but only gave a full description of it in 1951 in an Eranos lecture. In 1952, he published a paper, “Synchronicity — An Acausal Connecting Principle,” in a book with a related study by the physicist and Nobel laureate Wolfgang Pauli. After discussions with both Einstein and Pauli, Jung believed that there were similarities between synchronicity and quantum mechanics.

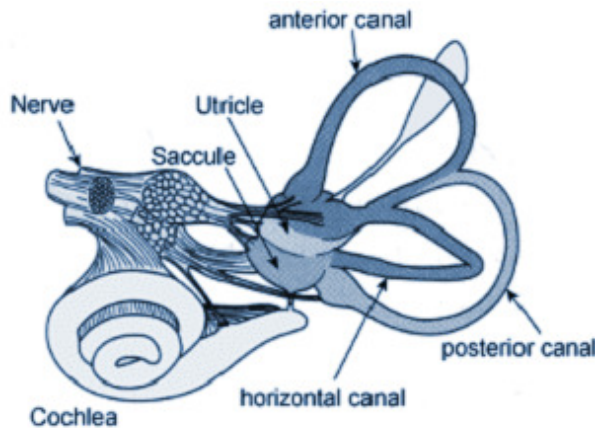


Synchronicity was explanatory of a dynamic that underlies the human experience. Jung coined the word to describe what he called “temporally coincident occurrences of acausal events.” It was a theory that Jung felt gave convincing evidence for his concepts of archetypes and the collective unconscious from Freud's psychoanalysis.

### **Ultrasonic Balance Organs**

Throughout the ages, extra-sensory perception has perhaps been the most laughed at and disgraced personal faculty. But now, the sixth sense is after a long wait being studied as an extension of the instinctive consciousness of balance, hearing, and smell. A 2008 New York Times, International Herald Tribune newspaper story reported:

**“Essential to a fully embodied sense of self is the vestibular system, a paired set of tiny sensory organs tucked deep into the temporal bone on either side of the head, right near the cochlea of the inner ear. The vestibular system isn't a high-profile, elitist sense like the famed five of vision, hearing, touch, taste and smell. It's more of a Joe Sixth-Sense, laboring in anonymity and frequently misunderstood.”** (“The unsung system that makes walking possible,” Natalie Angier, International Herald Tribune, Oct 29, 2008)



“Three of the organs are designed to detect twisting movements of the head, by sensing the discrepancy between the angular momentum of the membranes, which are attached to the bone, and that of the free-floating fluid, which lags slightly behind. The other two organs have tiny stones of calcium carbonate, which rise and fall like flakes in a snowglobe and so detect the effects of gravity and of linear head motions, if you’re walking forward, for example, or up stairs.”

Carl Jung believed that many experiences that are “coincidences due to chance” in terms of causality suggested the manifestation of parallel events or circumstances in terms of meaning. His synchronicity concept reflected a mysterious effect very similar to quantum entanglement. Sigmund Freud observed this line of reasoning in his essay "Dreams and Telepathy" (1922) pertaining to synchronicity.

Jung was fascinated by the idea that life was not a series of random events but rather an expression of a deeper order, and that the realization of this was a spiritual awakening. Yet, most scientists in those days barely mentioned the vestibular system and did not dream that it could contain “little organic gyroscopes and linear accelerometers.”

The vestibular system is not only crucial for perceptual stability, but it is also required to produce neural representations of the environment in order to accurately guide our behavior. Loss of function can produce an imbalance that manifests as stress symptoms or a dramatic, sudden onset of vertigo. By harmonizing the brain’s hemispheres, people can stimulate the vestibular system to ease types of stress and create a healthy, balanced attentive state:

**“Tel Aviv University researchers discovered a link between balance and anxiety in children and that improving balance may ease anxiety. Dr. Orit Bart at Tel Aviv University's School of Health Professions and colleagues found that a simple course of physical treatment for balance problems can also resolve anxiety issues in children.”** ("Improving balance may ease anxiety," UPI, Jan. 27, 2009)

Despite its humble status, the vestibular system has lately gained admirers among neuroscientists, who are amazed by its significance for perceptual equilibrium and general health. Vestibule dysfunction increases the risk of falling by a factor of 12, according to a recent medical study:

**“Now a new study conducted by Johns Hopkins researchers offers potentially lifesaving clues. Looking at data from the National Institutes for Health, researchers found that an estimated 35% of Americans over the age of 40 — roughly 69 million**

**people — suffer from vestibular dysfunction, or as it is more commonly known, an inner-ear balance disorder. By age 60 and older, the data showed, inner-ear imbalances strike more than half of all Americans.”** ("Many Elderly Falls Due to Inner-Ear Imbalance," Kathleen Kingsbury, TIME, May 26, 2009)

In 1991, Martin Lenhardt of the University of Virginia discovered that people could hear ultrasonic communication, using the vestibular system as a hearing organ. Ultrasound is sound with a frequency greater than the upper limit of human hearing. The most current ultrasound technology bypasses the normal audio mechanisms used by the body to hear sounds and provides a direct neural stimulation to the brain:

**“So outlandish is the concept that humans can have the hearing range of specialized mammals, such as bats and toothed whales, that ultrasonic hearing has generally been relegated to the realm of parlor tricks rather than being considered the subject of scientific inquiry.”**

The validity of ultrasonic hearing was previously demonstrated by “playing opera” to a deaf subject. The experimental work of Dr. Roger Maass performed in 1946 made all the essential observations in regard to ultrasonic hearing phenomenology. In 1962, teenage inventor Pat Flanagan became the subject of a Life magazine profile.

**“At 15, Flanagan had already begun to demonstrate the invention that would change his life: the neurophone. Built in his home laboratory from wire and brillo pads, the device transmitted audio signals from a stereo directly into the brain, bypassing the ears entirely. Although he knew that the sound was somehow being picked up by the wearer’s skin and bone, the exact mechanism would evade the inventor for 33 years.”**

At length, Martin Lenhardt duplicated Flanagan’s findings in 1991 using ultrasonic signals. He discovered that the “saccule,” a pea-sized organ in the inner ear typically associated with balance — a vestibular function — is also sensitive to ultrasonic sound, finally explaining how Flanagan’s invention worked.

## Understanding Chemical Signals



**Located just behind the nostrils in the nose’s dividing septum are two tiny pits referred to as the vomeronasal organ (VNO), also associated with extra-sensory perception. Named for the vomer bone, where the septum meets the top of the mouth, the VNO contains nerve cells that understand chemical signals called pheromones, secreted by many animals, including humans.**

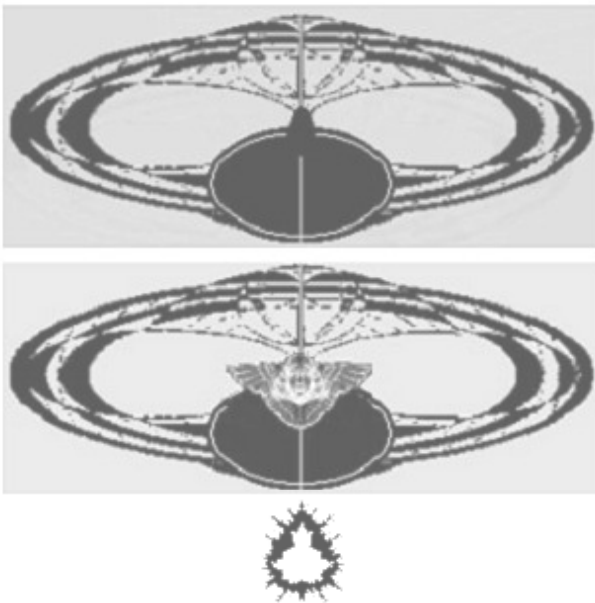
The University of Chicago authenticated proof of human pheromones in 1998. They transmit fear, stimulate courtship behavior, and give rise to moods of affection. Our ancestors probably communicated by a sixth sense, using semiochemical signals.

Plants, animals, and even secluded microbes converse or “talk” to each other with the molecular signals of pheromones — their external hormones.

There are alarm pheromones, sex pheromones, food trail pheromones, and many others that run life through a type of sixth sense. Insects mark trails with pheromones. Plants emit distress pheromones when grazed upon. Some organisms use pheromones to attract their mates from a distance of several miles.

Along with scent, the molecular signals of pheromones are detected in the olfactory bulb. “It’s all subliminal,” said bio-psychologist Martha K. McClintock. Life communicates with these molecules, and perhaps we are entering a “phase of ideal communication.” Prototypes of “hi-tech pheromone detectors” are expected to be in use in the immediate future:

**“British scientists are aiming to develop a device that can detect the smell of fear, and that could one day identify terrorists, drug smugglers, and other criminals. The 18-month project to develop two sensor systems is being carried out at the City University London, and is being led by Professor Tong Sun. The project has funding from the Home Office Scientific Development Branch. After a feasibility study is complete, two devices are expected to be designed to identify the fear pheromone in human sweat; one by laser absorption, and the other by a portable optical fiber instrument.”** (“Fear detector’ being developed,” Lin Edwards Customs, PhysOrg.com, Nov 3, 2009)



Scientists discovered that pheromone signals bear a “tether” resemblance to fractal geometry, or the bulb building process of the Mandelbrot Set. In 1999, Jeremy Avnet and Jennifer Carter gave a lecture entitled “Chaos and Neurodynamics” at the University of California, Santa Cruz. They studied EEG attractor formations in the olfactory bulb and processes controlling the oscillations between the inhalation attractor and exhalation attractor. They found that the exhalation process acts as a sort of reset button, causing all attractors throughout the olfactory bulb to dissolve.

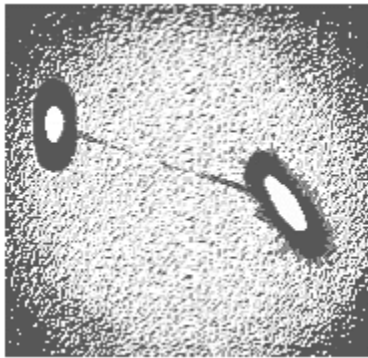
Russian biophysicist Pjotr Garjajev and his colleagues found that DNA could cause a disturbing pattern in a vacuum that churns out magnetized wormholes, or tunneling nanotubules. Wormholes are microscopic equivalents of Einstein-Rosen bridges near

black holes. They connect — by quantum superposition — different areas of space-time through which information can be transmitted instantaneously.

**“Physicists David Hochberg and Thomas Kephart have shown how gravity was strong enough in the very early universe to have provided the energy required to spontaneously create massive numbers of self-stabilizing wormholes. A significant portion of these wormholes is likely to still be around and may be pervasive, providing a vast network of corridors that reach far and wide throughout the universe. It might be easier to discover and use these natural wormholes than to create new ones.”** (Foreword to James Gardner’s “The Intelligent Universe” by Ray Kurzweil, 2007)

DNA also has the amazing ability to recognize similarities in other DNA strands from a distance. Somehow they are able to identify one another, and the tiny bits of genetic material tend to congregate with similar DNA, in a mysterious process like synchronicity or quantum entanglement. DNA has been found to have a bizarre ability to put itself together, even at a distance, when according to known science it shouldn't be able to:

**“Even so, research published in ACS’ Journal of Physical Chemistry B, shows very clearly that homology recognition between sequences of several hundred nucleotides occurs without physical contact or presence of proteins. Double helixes of DNA can recognize matching molecules from a distance and then gather together, all seemingly without help from any other molecules or chemical signals. In the study, scientists observed the behavior of fluorescently tagged DNA strands placed in**



**water that contained no proteins or other material that could interfere with the experiment. Strands with identical nucleotide sequences were about twice as likely to gather together as DNA strands with different sequences. No one knows how individual DNA strands could possibly be communicating in this way, yet somehow they do. The ‘telepathic’ effect is a source of wonder and amazement for scientists.”** ("The DNA Mystery: Scientists Stumped By 'Telepathic' Abilities," Rebecca Sato, The Daily Galaxy, Sep 22, 2009)

Researcher Chris Clarke believes that superposition “or at least something very like it” may play a role within a living organism, as part of its internal communication and control system. Stuart Hameroff, a physician at the University of Arizona, has drawn attention to the possible role of microtubules or tethers forming a “micro-skeleton” inside each living cell. Because of their small size, and the way they are shielded by their surrounding structures, such tubes could support internal vibrations whose states are well protected from “decoherence” by the environment — and set off superposition to link together natural quantum entanglement pairs.

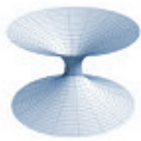
In 2005, a team of molecular biologists from London’s Imperial College detected such long-distance nanotubes or “invisible umbilical cords” connecting multiple cells:

**“Long membrane tethers between cells, known as membrane nanotubes or tunneling nanotubules, create supracellular structures that allow multiple cell bodies to act in a synchronized manner. Calcium fluxes, vesicles, and cell-surface components can all traffic between cells connected by nanotubes. Thus, complex and specific messages can be transmitted between multiple cells, and the strength of signal will suffer relatively little with the distance traveled, as compared to the use of soluble factors to transmit messages.”**

Today, Oriol Romero-Isart from the Max-Planck-Institut für Quantenoptik in Germany and a few associates sketch out the challenges that will have to be tackled to create a quantum superposition of a living thing — to “teleport” bits of genetic information by means of chemical signaling or a calcium-fluxed code through long-distance nanotubes. They say that it is achievable with our current technology:

**“One of the great challenges for quantum physicists is to find quantum behavior in macroscopic objects. There are obvious examples of quantum behavior on a large scale, such as superconductivity and superfluidity, but physicists want more. Having created quantum superpositions of photons, electrons, atoms and even molecules, one of the current obsessions is to create a quantum superposition of a living thing, such as a virus.”** (“How to Create Quantum Superpositions of Living Things,” MIT Technology Review, Sep 10, 2009)

Paolo Manzelli, director of the Educational Research Laboratory at the University of Florence, Italy, has written much about biological entanglement and said that “the new idea of viewing bio-quantum states as carriers of pure information energy signals leads to interesting questions regarding the ability of living systems to manage information in a way that otherwise never would have been asked.” Miguel Molla of the University of Florence compared biological entanglement to a “quantum bio-antenna.” Dean Radin, a psychologist writing in “SHIFT:” for the Institute of Noetic Sciences (IONS), said in a recent article:



**“Researchers will discover that under certain conditions, living cells also exhibit properties associated with quantum entanglement. Then the idea of bioentanglement will emerge, a concept that is more general than today’s special cases of entanglement involving inanimate particles and photons.”**

What might an invisible umbilical wormhole or long-distance nanotube look like? Maybe it looks like a “frozen thunderbolt” or lightning discharge — a quantum bio-antenna of filaments and tethers within a micro-skeleton of fractal geometry. Most researchers think that such filaments are probably common plasma jet structures: the fourth state of matter. But scientists like Dr. Laszlo Kortvelyessy of Hungary hold a different view.

According to Kortvelyessy and his associates, the filament-state is a fifth state of matter, due to its form of energy or particle-acceleration. The filament-state is a non-thermal state of matter, bordering on the Bose-Einstein condensate. (A zero state Bose-Einstein condensate has no thermal but only a very low quantum mechanical energy.)

## Filament-States of Matter

Filaments are thus wrongly said to be of plasma. But within them, particles move in only one direction, often against gravity. Celestial bodies that do not obey thermodynamics, gravity, and many other physical laws have a filament form. “They are not in the fourth,



but in a fifth state of matter,” as indicated by the beam-state-of matter. The zigzag ebb and flow of plasma does not exist in the filament-state because its particles do not move in all three dimensions. A filament is a parallel flight in one direction, of either electrons or ions. Gravity-free expansion of a magnetized wormhole may produce faster than light-speed entanglement and non-locality by tethering the fifth state of matter.

All charged filaments have the same elegantly simple explanation: the pinch effect that routinely produces the cylindrical form of electrically charged and ejected matter. The electrically emitted coronal ions fly along straight lines. They do not emit any electromagnetic waves from their high motion energy. Dr. Kortvelyessy described the characteristics of bodies in a fifth state of matter:

**“They all have a filament-form, their particles fly parallel to the filament axis. They mostly have particles of higher energy than those of the plasma bodies. In spite of the very high particle-energy, they all do not emit heat. They all have a circular cross section and, therefore, a more or less bent cylindrical body. Like crystals, they have a deeply organized form, also in their smallest branches. Like crystals, they can oscillate with more frequencies. They move as if gravity would not exist even in the very mouth of a black hole. Their electric charge is either positive or negative. They dissolve in space at zero charge.”** (“The 5th state of matter,” Dr. Laszlo Kortvelyessy, Hungarian Observatory Kleve, 2002-2006)

The idea of synchronicity may have a new explanation. Contained by an entanglement wormhole or superposition tether in the filament-state of matter, a very high energy of ions or electrons (i.e. quantum-state information) moves with instantaneous velocity in only one direction — the direction of teleportation. And you can lengthen the cylindrical umbilical cord by as much as a galaxy if you want.

If it were possible for us to see quantum teleportation with the naked eye, could we also experience the non-locality of a superluminal influence? Would we notice synchronicity and ESP? By boosting the light emitted by one member of a quantum entangled photon pair, Nicolas Gisin at the University of Geneva in Switzerland and his colleagues think they can make the quantum superposition effect visible to a human eye:

**“In the traditional set-up, two widely separated particle detectors are used to measure the entanglement of the two photons. But Gisin and his colleagues want to let the human eye do some of the work. The researchers would send one photon to a**

**standard detector and the other to a human observer in a dark room. The human would see a dim point of light in either the right or left field of view, depending on the photon's quantum state. If those flashes of light correlate strongly enough with the output of the ordinary photon detector, then the scientists can conclude that the photons are entangled.**" ("Can Physicists Make Quantum Entanglement Visible to the Naked Eye?" Discover Magazine, Jun 6, 2010)

If a person could see photons that were entangled with each other, would the stimulus really transmit faster than light? American physicist Mario Rabinowitz has proposed the travel of microscopic primordial wormholes through the atmosphere. In his "Little Black Holes: Dark Matter And Ball Lightning" (2002), Rabinowitz provided indication that a long-distance nanotube tether could show outwardly as ball lightning that veils it.

**Ball lightning is thus far an unfamiliar phenomenon. A standard hypothesis currently suggests that ball lightning consists of vaporized silicon burning through oxidation. But the exact cause and composition of ball lightning has yet to be determined. There may be several different varieties. It usually appears as a grapefruit-sized sphere of light moving slowly through the air, which may end by fizzling out or exploding.**

Gazing into a tunneling wormhole might let us glimpse into the strange and unknown workings of one of the most powerful forces in the universe. A burning sphere of light could perhaps point to a theoretical boundary known as the "event horizon" near a magnetized wormhole.

Ted Jacobson from the University of Maryland and Thomas Sotiriou from the University of Cambridge examined what is needed to look closely within a wormhole — beyond its elusive event horizon — and observe its internal stretched cylindrical form. Astronomer David Floyd at the University of Melbourne appraised their investigation:

**"According to Floyd, if you could survive a journey beyond the event horizon of a black hole you would see unusual optical effects. 'You would see what's behind you in front of you and multiple images of things wherever you looked. That would become more extreme as you approached the heart of the singularity, at least that's what the maths tells us,' he says."** ("New theory on how to see inside black holes," Stuart Gary, ABC, June 21, 2010)



Psychic and television personality Uri Geller is a relative of Sigmund Freud. Uri claimed that he first became aware of his "spoon bending" ability when he was about five years old. He was in a neighbor's yard in Tel Aviv when a light from the sky hit him and knocked him to the ground. Years later, an Israeli man named Yaakov Avrahami recalled at one time walking in Tel Aviv and seeing a ball of light: "At that certain moment I noticed a little boy with a white shirt come out from the building to the left." Avrahami said the ball of light followed the youth.

People who miraculously survive lightning strikes can sometimes develop extraordinary “savant” talents. An electromotive force might also critically alter the optical discharges and biophoton emissions of DNA molecules. Researchers at the Joint Quantum Institute led by Ian Spielman recently created “synthetic magnetic fields” using visible light. With the metal bending aspect of the Geller Effect, biophoton emissions apparently convey a charge on neutral atoms and create a synthetic magnetic field to which they respond — even though no field is there.

Hilary Evans observed that a small number of people seem to interfere with streetlights and electrical appliances. He cited an established Hungarian physicist who is a specialist on ball lightning:

**“In my opinion during such incidents some special, presently not known type of magnetic field is created around the body, which has an effect upon the structure of the materials. Consequently their fundamental properties are changed temporarily: like their tensile stress, electric conductivity, magnetic momentum, optical properties, etc. The same effects are detected in the case of ‘metal bending,’ or similar features are observed sometimes around ball lightnings.”**



People undergoing transcranial magnetic stimulation (TMS) might for a few minutes suddenly display savant intelligence — exceptional surges of brilliant cerebral ability — as a temporary effect of magnetic brain stimulation. Doctors in Austria believe that magnetic fields made by lightning could have the same effect as TMS machines on nearby humans:

**“Joseph Peer and Alexander Kendl at the University of Innsbruck in Austria wondered whether ball lightning is really a hallucination induced by magnetic stimulation of the brain's visual cortex or the eye's retina. Focusing magnetic fields on the visual cortex of the brain caused the subjects to see luminous discs and lines. When the focus was moved around within the visual cortex, the subjects reported seeing the lights move.”** (“Ball Lightning May Be All in Your Head,” Ker Than, National Geographic News, May 14, 2010)

If Mario Rabinowitz’s ball lightning is shaped by a magnetic wormhole’s event horizon, its “orb image” is certainly an optical illusion. What may look like a sphere of light to an eyewitness is really a umbilical tether line: a stretched filament teleporting electrons or ions from a constricting black hole to an expanding white hole — conceivably over a cosmic distance of space and time.

### **Quantum Time Machines**

An extraordinary effort is on track to create a quantum superposition of living things, and for a real person to see quantum entanglements with the naked eye. But can teleportation technology use entangled states to see backwards into time? Russian physicists seriously

believe that the Large Hadron Collider (LHC) located on the border of Switzerland and France can be used for time travel:

**“Modern principles of theoretical mathematical physics allow the possibility of time travel,’ explains Igor Volovich, a member of RAS. ‘One of the admissible models of working time machine is the so-called wormhole, that is, a space-time tunnel leading to another time or space. And the probability of formation of a wormhole in the LHC is comparable to the probability of occurrence of the black hole itself, which can occur when particles collide with high energy.’ Another necessary condition for making the machine work is to distort space and time so it closes up in a ring. And the LHC is quite capable of that. ‘This phenomenon in physics is called “closed time-like curve,”” explains Professor Irina Arefyeva. ‘It allows, at least theoretically, returning to the past.”’ (“Time Machine Built in Europe, Russian Scientists Say,” Pravda, Aug 6, 2010)**



Medieval spiritualists declared peculiar synchronicities or entanglement intricacies with artifacts of exceptional historical value, such as the spear of destiny or wood of the cross. At the present time, a particle physics experiment will use ancient Roman lead bricks whose radioactivity diminished over the centuries:

**"The cargo from a Roman ship sunk off the coast of Sardinia more than 2,000 years ago will finally be put to use — it will become a shield for a neutrino detector. In Italy, 120 lead bricks recovered from the shipwreck will soon be melted to make a protective shield for Italy’s new neutrino detector, CUORE (Cryogenic Underground Observatory for Rare Events). The ancient lead, which is useful because it has lost almost all traces of its natural radioactivity, has been transferred from a museum in Sardinia to the national particle physics laboratory at Gran Sasso. After spending two millennia on the seabed, the lead bricks will now be used in an experiment that will take place beneath 4,500 feet of rock." (“Particle Physics Experiment Will Use Ancient Lead From a Roman Shipwreck,” Discover magazine, April 16, 2010)**

A bizarre urban whimsy of time travel tells of a brainwashed captive pinned down as a living target assembly in the “Montauk chair” of a physics laboratory to absorb black hole disintegration. Yet, quantum bio-entanglement with a “parallel universe” might be more benignly possible using a novel ensemble, in a way that allows measurement of a superluminal effect. At the base of every strand of human hair are “clock genes” that influence circadian rhythms:

**“Tracking your internal clock may be as easy as plucking a few strands of hair, according to a new study. The research, published in the journal Proceedings of the National Academy of Sciences, found that hair follicles hold a record of the gene activity that influences when we wake and when we sleep. So Makoto Akashi, a researcher at Yamaguchi University in Japan, and colleagues turned to hair. At the**

**base of every strand of hair is a follicle of living cells, which clings to the hair when plucked. By tweezing an average of 10 head hairs per person (five for thick-haired folks and as many as 20 for those with thin locks), the researchers were able to isolate and track the activity of three separate clock genes.”** ("Sleep Secrets Revealed in Human Hair," Stephanie Pappas, LiveScience, Aug 23, 2010)

The teleportation of human clock genes through “universal black hole mergers” could herald Bracewell-von Neumann probes for interstellar exploration, since conventional radio signals cannot be transmitted faster than the speed of light, and local space-time is based on a Cartesian dimensionality. Ronald L. Mallett, a professor of physics at the University of Connecticut, is currently conducting time travel experiments limited to atomic particles. Pavel Sekatski at the University of Geneva is trying to replace photon detectors with human observers. Efstratios Manousakis of Florida State University, Tallahassee, claims to have come up with the first successful use of quantum theory to explain features of consciousness.

**“Dr. Daryl Bem, a social psychologist at Cornell University, conducted a series of studies that will soon be published in one of the most prestigious psychology journals (Journal of Personality and Social Psychology). Across nine experiments, Bem examined the idea that our brain has the ability to not only reflect on past experiences, but also anticipate future experiences. This ability for the brain to ‘see into the future’ is often referred to as psi phenomena. Similarly, modern quantum physics has demonstrated that light particles seem to know what lies ahead of them and will adjust their behavior accordingly, even though the future event hasn't occurred yet.”** ("Have Scientists Finally Discovered Evidence for Psychic Phenomena?!" Melissa Burkley, Ph.D., Psychology Today, Oct 11, 2010)

Harvard Medical School psychiatrist Carl Marci first established a connection or "physiological concordance" between two people. The maternal instinct, marriage vows, and token actions like a kiss or handshake suggest phase locking entanglements — in order that synchronicity may persist at a distance. But Marci's 2007 study was limited and he called for more study into networked metabolic states. In 2010, volunteers were observed using electrocardiography and a monitor on the finger to measure skin conductance resonance to identify the moment of alignment or "oneness" during counseling:



**“A five-year study monitoring brain activity during therapy sessions has shown that two people can become physiologically aligned — parts of their nervous systems beating in harmony — despite having no physical contact with each another. Trisha Stratford, the neuropsychologist who did the research at University of Technology, Sydney, said her study provided a deeper understanding of what happened when people interacted, including when a couple fell in love.”** (“Mind blowing power of love,” Tim Barlass, The Sydney Morning Herald, Sept 26, 2010)

During a visit to Freud in Vienna, Jung attempted to defend his telepathic viewpoint and sparked a heated debate. A shocking synchronistic event followed. Jung writes in his memoirs:

**“While Freud was going on this way, I had a curious sensation. It was as if my diaphragm were made of iron and were becoming red-hot — a glowing vault. And at that moment there was such a loud report in the bookcase, which stood right next to us, that we both started up in alarm, fearing the thing was going to topple over on us. I said to Freud: 'There, that is an example of a so-called catalytic exteriorization phenomenon.' 'Oh come,' he exclaimed. 'That is sheer bosh.' 'It is not,' I replied. 'You are mistaken, Herr Professor. And to prove my point I now predict that in a moment there will be another such loud report!' Sure enough, no sooner had I said the words that the same detonation went off in the bookcase. To this day I do not know what gave me this certainty. But I knew beyond all doubt that the report would come again. Freud only stared aghast at me.”**

Freud was ready to admit that knowing the time and location of a quantum superposition would be important for scientific investigation. But Jung’s synchronicity also gave a spot of credibility to the fascination of astrology — and spooky action in the bookcase.



Stephen Hawking and Roger Penrose first confirmed that a singularity must result inside a black hole. Theoretical physicist John Wheeler made up the terms black hole and wormhole. (Nowadays wormholes are occasionally also called “rabbit holes.”) But in all likelihood, the incomprehensible teleportation of a tunneling nanotube unconsciously takes us back to a remembrance of the birth canal — for the simple reason that we are a bio-quantum superposition of the X and Y states of our parents.

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