

## **Science Proves Psychic Healing**

Parts One and Two

By James Crenshaw



## Part One

Physical evidence that energies associated with psychic or spiritual healing can be detected and measured, using standard laboratory equipment, may be "one of the most exciting developments of this decade."

Furthermore, these subtle energies seem to be electrical in nature. They also may be more than that (many healers contend the source of their energies is divine), but experimenters are beginning to use a term for healing energies coined by the late Baltimore healer Ambrose Worrall--para-electricity, meaning "beyond electricity."

Authority for the preceding statements is Dr. Robert N. Miller (Ph.D.), industrial research scientist, who heads a team of physicists and healers attempting to determine how these energies are generated, how they are stored and how they may be used with maximum efficiency.

It was Dr. Miller and the research team, including Dr. Philip B. Reinhart, chairman of the physics department at Agnes Scott College in Atlanta, Georgia, who proved that the para-electricity transmitted by a healer can be directed to a particular location and there detected by appropriate laboratory device.

The device was a modern cloud chamber (a modification of the Wilson cloud chamber invented by British physicist and 1927 Nobel Prizewinner Charles T. R. Wilson) ordinarily employed to study the paths of subatomic particles which are made visible in a saturated air and alcohol vapor. Dr. Miller and Dr. Reinhart first tested the device's effectiveness for detecting psychic energies when healer Olga Worrall visited the college in January, 1974. For many years Olga worked with her husband Ambrose and has continued her free healing services and research with physicians and scientists since his death in 1972.

She and Dr. Miller reported on their experiments, including those in the laboratory and subsequently at a distance, before an audience of some 1,700 persons at a symposium on "Thought As Energy" at the beautiful Founder's Church of Religious Science in Los Angeles in February 1976. The program was sponsored by the Ernest Holmes Research Foundation which honors the church's founder and provided funds for the project.

The Miller-Worrall presentation was titled "Scientific methods for the Detection and Measurement of Healing Energies," admittedly a bold statement of accomplishment in an area usually considered to be entirely paranormal.

Dr. Worrall (she has two honorary doctorates) described what happened when she placed her hands near the cloud chamber but did not touch it.

"I visualized healing energy flowing from my hands," she said, "just as I do when treating a patient. After about half a minute we saw a wave pattern develop in the sensitive zone

of the chamber. The waves were parallel to my hands and seemed to be moving from the right hand toward the left." She had previously said she does her most effective healing work with her left hand.

"After several minutes, I shifted the position of my hands 90 degrees. The waves began to change direction and soon were moving at a right angle to their original path. Other members of the research team placed their hands around the cloud chamber to see if they could produce a visible effect. Nothing happened."

Several weeks later the experiment was repeated at a distance of some 600 miles. Dr. Worrall was at home in Baltimore, Maryland and the cloud chamber was still at the college in Atlanta. What happened was not precisely according to plan but the results perhaps were even more meaningful than if the plan had been strictly followed.

Dr. Worrall explained, "Dr. Miller asked me to concentrate my thoughts and energies on the cloud chamber at exactly 8:50 P.M. He also suggested that I mentally hold my hands at the sides of the chamber for several minutes and then change the orientation 90 degrees as I did when I was actually present in the physics laboratory.

"But I was not able to reverse the flow because they forgot to tell me they had changed lab rooms. So when I projected my mind to the original room it was in darkness and I had to go down the hall and find one that lighted. I was quite annoyed with them because they didn't tell me where it was going to be. So I forgot to reserve my hands!"

Nevertheless, the experiment was a success--in more ways than one. At 8:53 the mist in the cloud chamber began to pulsate and the wave motion continued for approximately seven minutes. Then the motion subsided but did not change direction. "It was their fault," said the healer.

The scientists waited expectantly for a change of direction of the wave motion. It never came, thus eliminating any idea that suggestion on their part was affecting the results.

A second "transmissions" of healing power to Atlanta from Baltimore a few minutes later produced similar results, and eight minutes were required for the unidirectional undulations in the cloud chamber to subside.

This was a further verification of the physical effect of healing energies, including absent healing, and the implication is inescapable: that it is reasonable to believe such energies may have a profound influence on body cells. So Dr. Miller and his colleagues set about trying to find other methods of detecting the energies and, probably more important, a method of measuring them.

"Since plants are living systems, and like human beings, are reputed to have an etheric or nonphysical counterpart, there was a good possibility they could serve as detectors," said Dr. Miller. "Absorption of the energy by the nonphysical



part of the plant could produce a measurable reaction in the physical."

The use of plants as detectors already has been tested. Dr. Bernard Grad at McGill University in Canada had demonstrated that a healer can increase the growth of plants. Sister Justa Smith, a nun who is a noted biochemist at Buffalo, New York, had found that the same healer was able to influence the growth of enzymes.

At the Los Angeles meeting Dr. Miller reviewed a 1965 experiment in which Olga and Ambrose Worrall in Baltimore succeeded in producing an 840 percent increase in the growth of rye grass in the Atlanta laboratory 600 miles away. Since then polygraph expert Cleve Backster and experimenter Marcel Vogel have demonstrated that thought can produce changes in the electrical potential of plant leaves. So at Agnes Scott College Silva chloride electrodes were attached to a leaf of a philodendron plant. These were connected to a strip chart recorder through pre-amp and amplifier systems. An oscillating, low-amplitude electrical signal was registered. When Dr. Worrall place her hands four inches from the plant the amplitude increased markedly. To prove this was not a standard capacitance reaction, with the healer acting as a kind of antenna, other researchers tried to produce the same results. They managed only a slight effect.

With another healer, working at a distance of eight feet, the plant potential at first decreased but thereafter marked increases in amplitude were noted.

Next the researchers sought to establish the brain wave frequency most efficient for healing energies. Not surprisingly, they found the healers were in the alpha rhythm, described by Dr. Miller as the deep meditative state (eight to 13 cycles per second) while transmitting healing energies to test subjects.

During biofeedback experiments Dr. Worrall's normal state of consciousness varied from 14 to 25 cycles per second; this is the beta state, typical for most persons while awake. But during the laying-on-of-hands the alpha state was achieved with extreme rapidity-- in eight seconds--whereas most people take from five to 20 minutes to reach this meditative state.

Another healer was found to operate in both the alpha and theta ranges, or from a relaxed pre-sleep frequency into a light sleep state (three to seven cycles per second). Below three cycles per second is regarded as a deep sleep or delta state.

One objective of the research was to discover the precise mechanism of spiritual mental healing. The scientists now decided they had a clue: on the boundary between the conscious and unconscious state, when distracting sense stimuli are at a minimum, it is possible to give direction to the subjective-subconscious mind with minimal interference or distortion.

"The results of the experiments confirm this concept," reported Dr. Miller, "and they indicate that the alpha state of consciousness is the most effective state for mental healing."

The research team then attempted to develop a method for measuring healing energies. First they experimented with copper salt solutions. After making sure that important variables were controlled--such as the volume of the solution, the relative humidity of the environment (50 percent), temperature and source of water--the scientists asked Dr. Worrall to place her hands around a container of the solution. Another untreated solution was used as a control.

In two days both solutions crystallized but the treated specimen turned from jade green to blue, whereas the control crystals remained green. Moreover, the treated solution yielded a coarser grained crystalline structure than the control solution.

Scores of tests led to the conclusion that copper salt solutions are reliable indicators of the presence of energies. Thereafter microscopic examination of the crystals convinced Dr. Miller that the differences--induced by the healer--were due to changes in the properties of the water. (This tended to confirm Dr. Grad's experimental results at McGill where seed and plant growth at first were stimulated by the proximity of the healer's hands but later by "treated" water from containers he had held in his hands.)

After numerous tests for viscosity, electrical conductivity, capacitance and refractive index, Dr. Miller and his associates found there were significant differences in the surface tension of healer-treated and untreated water. This might be the measuring stick they are seeking. Dr. Miller explained it this way:

"The surface tension of a liquid is a measure of the attraction of the molecules at the surface and is related to the bond energies of the molecules and is usually expressed in dines per centimeter."

Specimens of water were prepared in which the healer placed the forefinger of each hand for three minutes. The energized water showed a surface tension of 62.9 dines; the control water, 70.1 dines. (Atlanta city water was used.) Comparable results were obtained with a second healer.

A decrease in surface tension likewise was noted when water was "treated" by a non-healer, but this was not as pronounced as when the healers treated the water. Eventually it was determined that the surface tensions of treated and untreated distilled water--the tension being significantly reduced after exposure to a healer's hands--constituted the best method yet discovered for detecting and measuring energies.

Dr. Miller said this discovery may be "one of the most Reprinted with permission from FATE Magazine, January 1976.



exciting developments of this decade, because it means that we not only have discovered a method of detecting the energy associated with healing. but we can also measure it quantitatively. Furthermore, we have verified that such an energy actually exists."

He referred to it as "primary energy" or, using Ambrose Worrall's term, "para-electricity." He declared it was the same as the life force of the ancient Chinese, the prana of the yogis, the odic force of von Reichenbach, the orgone energy of Wilhelm Reich. He predicted: "We will now be able to determine the characteristics of this subtle energy, how it can be generated, stored and used with a maximum efficiency."

Another step toward this goal was a series of experiments with magnets. Since the days of Anton Mesmer in the last century there have been "magnetic healers." So the researchers in Atlanta decided to compare magnetic energy with that of a healer. Water was exposed to a magnetic field of 1500 gauss for 15 minutes and compared with control water and healer-treated water.

The results: surface tension of the control water--75.6 dines; of water treated by a healer--60.7 dines; of water from the magnetic field--60.4 dines.

There seems some justification for using the word "magnetic" in connection with healing.

Further verification was obtained by exposing copper salt solutions to a magnetic field. In each case the resultant crystals turned turquoise blue (as had those treated by a healer), while control crystals remained jade green.

Dr. Miller and his colleagues concluded: "These experiments have shown that the energy from a healer and from a magnet have similar effects upon the water and upon solutions of copper salts."

But he said the question still remains: Is the energy from a magnet a healing energy?

He recalled that Mesmer once used magnets for healing by manually passing them over various parts of the body but abandoned the technique when he found that "passes" with his hands alone seemed equally effective. He felt his hands rather than the magnets, had been responsible for the effects all along.

"Our experiments, however, indicate that the magnet itself produces a measurable (healing-type) energy, and if we can equate the growth rate of plants with healing, the results would also indicate that magnets do emit a healing energy," said the scientist.

Distilled water "treated" by a magnet and water treated by Dr. Worrall were used to grow rye grass seeds under carefully controlled conditions. After four days of healertreated seeds had nine sprouts; the magnetized cups had 17 sprouts, and control cups watered with Atlanta tap water had only two sprouts. However, it was noted that the water treated by Dr. Worrall was a month old, whereas the magnetized water was fresh each time. later it was determined that freshly magnetized water gave up its energy after two or three days.

Finally, after eight days, the growth of the control plants and those watered with the magnetized water was compared. The average height of the control grass was 2.8 inches and that of the magnetically treated specimens, 3.6 inches.

Because Russian experimenters had reported that a strong magnetic field will affect the properties of water by changing the hydrogen bonding in the H20 molecules, samples of healer-treated water were sent to an expert for analysis. An infrared spectrophotometer was used to determine whether there would be the same kind of changes as were seen by the Russians. As a result, "We have positive evidence that the energy from a healer's hands causes a change in the molecular structure of water."

Dr. Miller explained: "Water in the normal state has many hydrogen bonds normally distributed. When energy is added, whether by a healer or through the use of magnets, the bond energies are changed. This in turn causes a change in the surface tension of the water. However, water which is so energized will eventually give up its energy and revert back to its normal state.

"What it means," he said "is that we have been successful in bringing the energy associated with healing from the realms of folklore to its proper place as a recognized energy on the frontiers of modern science. We have provided missing pieces in the puzzle of how healing occurs.

"Our results indicate that the healer either transmits energy to the patient or mentally creates the condition for the patient to absorb energy from his surroundings. The cells and the organs in the body resume their normal function with increased vigor and the healing takes place."

Dr. Miller, former professor of chemical engineering at Georgia Institute of Technology and now a research scientist for the Lockheed Aircraft Company in Georgia, is a member of the advisory committee of the Ernest Holmes Research Foundation, along with a number of these scientists and physicians. The foundation is unique in that it represents a major effort by a church--the United Church of Religious Science--to verify scientifically "certain religious structure of water."

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Dr. Miller, former professor of chemical engineering at Georgia Institute of Technology and now a research scientist for the Lockheed Aircraft Company in Georgia, is a member of the advisory committee of the Ernest Homes Research Foundation, along with a number of other scientists and physicians. The foundation is unique in that it represents a major effort by a church--the United Church of Religious Science--to verify scientifically "certain religious concepts that have been known for ages," including spiritual healing and the relationship of body, mind and spirit.

The foundation's research program is supervised by a board of directors headed by Willis H. Kinnear, publisher of Science of Mind Magazine, which was co-sponsor of the symposium. A member of the board is Robert Young, the Dr. Marcus Welby" of television, who was chairman of the program.

Another speaker who verified the existence of healing energies was Dr. Thelma Moss, internationally known parapsychologist and assistant professor of psychology at the University of California's Neuropsychiatric Institute in Los Angeles. She submitted visual and medical evidence of the power associated with mental or spiritual healing, based on extensive studies of numerous healers, including Olga Worrall and a "magnetic healer" who helped a badly injured man avoid a seemingly inevitable leg amputation at the UCLA Medical Center.

Dr. Moss said her work with radiation (Kirlian) photography verified Dr. Miller's findings concerning the objective nature of healing energies. Interestingly enough, one of the leading critics of this kind of "photograph" as an investigative took, Dr. William A. Tiller, Stanford University physicist, also was a speaker at the symposium on another subject. He did not discuss the radiation findings, but <u>FATE</u> learned he had changed his mind to some extent about the significance of Kirlian technique.



## **PART TWO**

Investigators discover that healers such as Olga Worrall emanate electromagnetic energies which radiation photography can measure.

It wasn't too long ago that talk of magnetic healing, auric fields and etheric bodies was considered thoroughly unscientific and so traditionally metaphysical as to be outside the realm of physical research, although certain pioneers-generally regarded as discredited in their own times--had laid the groundwork for later explorations.

Now energies associated with these terms are being observed and measured by laboratory investigators using physical tools within the guidelines of scientific disciplines. True, there may have been some raised eyebrows in the scientific community when Dr. Robert N. Miller, an industrial research scientist, announced he had been able to detect healing energies at a distance of 600 miles in a cloud chamber designed to study the paths of subatomic particles.

Nor were there great whoops of joy from the orthodox establishment when parapsychologist Thelma Moss of the University of California at Los Angeles revealed she has produced visual evidence of these same kinds of energies in her experiments with Kirlian photography, also supposedly a discredited technique imported from Russia.

Nevertheless, since both Dr. Miller and Dr. Moss are respected researchers, their findings cannot be dismissed lightly.

Thelma Moss is an assistant professor of medical psychology at UCLA, but her parapsychology laboratory has won wide recognition for a variety of ESP experiments conducted there, (Once asked if "they"--presumably the faculty and administration of the university--were "proud" of her because of this international recognition, she replied she felt they were "tolerant, embarrassed, but not proud!")

The key word in her latest findings, as in Dr. Miller's, is energy," and that is why she too was a speaker at a "Science of Mind" symposium on "Thought as Energy" at the Church of Religious Science in Los Angeles in February 1975.

Using the radiation (Kirlian) technique, in which photographs are taken with high-voltage, high frequency electrical discharges, Dr. Moss believes she has shown visually what Dr. Miller and his associate, Dr. Philip Reinhart, demonstrated in an Atlanta, Georgia, physics laboratory. All of them believe a perceptible energy transfer takes place between a proficient mental or spiritual healer and a patient or for that matter any target toward which the healing energies are directed.

Fingertip radiation pictures were taken of a healer who first placed his fingers on a film while he was in a "normal" or resting state. The resulting Kirlian photograph shows what Dr. Moss says is "a very full discharge" from the finger

pads. The discharge also is called a corona or aura and although Dr. Moss does not attempt to define specifically such occult terms as aura and etheric body, neither does she shy away from them.

While the healer presumably concentrated on healing, new pictures were taken, on color film as before. The discharge pattern had changed. What had been a full blue-white corona became a blotch of orange-red. Then as more pictures were made during the healing procedure, the fingertip emanations began to diminish until they completely dissipated.

"Something had gone out of it we like to think," Dr. Moss says.

Conversely, a patient who is ill and debilitated was found to show a very small irregular discharge pattern, usually with gaps in the corona. What the gaps mean is not certain. Yet after healing the gaps often will have disappeared and the corona will have filled out. Meanwhile, tests using non-healers as controls produced no such results.

The experiments have been repeated many times but since they in themselves do not prove healing power, Dr. Moss embarked on a separate program in an effort to authenticate mental or psychic heading.

Two rules were established for the program: (1) the patient must be referred by a doctor who would provide medical records, and (2) the referring doctor must admit it is a "last chance" that he can do nothing more for the patient. Dr. Moss described two spectacular studies, the first involving a young man with a paralyzed arm.

"A neurologist sent him to us, saying he could do nothing more for him," she reported. "He is now fishing with that arm. The neurologist is amazed."

Successive Kirlian pictures appeared to show an increase in the corona pattern of the patient's finger pads as the healing treatments progressed. "The patient seemed to get more energy," Dr. Moss commented.

The healer, Jack Gray, uses so-called magnetic passes in much the same manner as Anton Mesmer used them in the last century. Gray was the healer in the other "last chance" case also. Dr. Moss described the circumstances:

"I received an urgent telephone call from the mother of a young man who was taken to the hospital at UCLA after an automobile accident. It was an emergency. His right leg was so totally shattered the doctors insisted it would have to be amputated. They said if they did not amputate it, he would never be able to walk again; that the leg could not heal; that he would become addicted to pain-killing drugs and still there would be incessant pain. Modern medicine gave him no hope to saving the leg."

Gray was called in at about 8:00 P.M. and remained until 5:00 A.M., working with passes at a distance. The young man was screaming, "Cut it off! Cut it off! I can't stand it!"



Gray tried to approach as close as one foot but the patient cried out that this increased the pain. However, as the night wore on Gray was able to move his hands closer and closer until finally he was working at a distance of 12 inches. he continued this for about two hours.

What was happening?

Dr. Moss theorized: "Let's say that the etheric body or the energy body had extended itself that much because of the dire stress the boy was in. But after two hours he did fall asleep and after a week of this kind of treatment he was feeling no pain.

"That was two years ago. Today he is walking, sometimes with a cane, sometimes without, and he has never had an amputation. The doctors quite agree they do not understand what happened.

Dr. Edgar Damson, professor of orthopedic surgery at the UCLA Medical Center, said, sometime after the success of the treatment, "He was presented to a conference at the medical school and the general consensus of the consulting surgeons, as well as the others in attendance at the conference, was that amputation should be done. By all odds, this fracture should never have healed. But it did. I have no explanation for this at all, just as I have no explanation as to why his pain went away so quickly. We tried acupuncture. We tried hypnosis. Nothing that I did and nothing that he did made his pain go away. So I don't know what the answer is."

Dr. Moss commented that X-rays taken after eight months of therapy by the healer show a change in the "bone matter" had taken place which "should not and could not take place according to known medical science."

Gray used suggestion as well as magnetic healing power, however that power may be defined. During the latter days of the therapy he would say to the patient. "Tell yourself, 'I can walk! I can walk! Without crutches!' Walk! Turn around! Don't be afraid. Remember, there is nothing to fear."

But Gray believes the radiation experiments prove he has a psychic energy that can be transmitted.

"To do effective healing, I myself have to be healthy," he says. "Since I am healthy, normal and natural in every way. I am able to direct the energy to the body of the patient. There it is picked up and goes wherever it is needed. This is how I believe it works."

For two days before they appeared as speakers at the "Thought As Energy" Symposium, Dr. Moss tested Olga Worrall at UCLA using radiation photography. The results were similar to those obtained with Jack Gray and other healers. First, pictures were taken in her "normal" state and then while Mrs. Worrall was healing. When the Worrall pictures were developed Dr. Moss found "there was an enormous increase" in fingertip corona discharges.

The Baltimore healer also demonstrated the spectacular

effect of her energy on a piece of black and white film which she simply held between her fingertips without exposing it to light. After about two minutes the film was developed. The resulting picture showed a strange cloud-like wave pattern with what one observer called "surrealistic bands."

Asked what it was Dr. Worrall said, "I don't know what you modern scientists call it but we used to call it ectoplasm."

She had done the same experiment at the same laboratory two years before, which led Dr. Moss to believe that healing energy was being photographed without a camera, without electricity or other artificial agent. This time, however, skeptical laboratory assistants decided to repeat the experiment with five layers of film, stacked one behind the other. Meanwhile, the developer was changed and carefully checked. A control film was put through (with no effect) and then Dr. Worrall was asked to hold the layered pack. Again there was the "ectoplasm" effect--on all fives pieces of film.

When other persons in the lab held the film under the same conditions, some indications of an energy affecting the film were seen but the results were not nearly so spectacular as those obtained by the healer, Even so, Dr. Moss considered these results significant.

"We don't know what we are looking at in these pictures but this may be one of the first examples in current research in which we can get on film an energy that people are emanating," she said.

She explained that she uses the word "current" because Baron von Reichenbach and others in the past noted similar photographic effects, "but no one believed them or paid any attention to them."

Dr. Worrall also succeeded in producing "phantom leaf" effects on film, using Kirlian photography. Where a part of a leaf had been cut away, after the healer treated it "little blue bumps" appeared to outline the "phantom" or severed part of the leaf.

This "phantom leaf" effect has been previously reported by Russian researchers using Kirlian photography. They named the mysterious force "bioplasma" and called the strange pattern of the cut-away portion of the leaf its "bioplasma body."

"We call it an energy body," said Dr. Moss. "We would say perhaps that the leaf has, as in acupuncture, an energy system that is still photographable when the physical leaf has been cut away."

The UCLA research team worked two years and took thousands of pictures before being able to film the "etheric" or energy body of a cut leaf. They saw on the severed side of the leaf "fluky little lines" and tiny balls of light that were similar to what the Russians had seen. As the work progressed these developed into visible patterns, as if the ghost of the



severed portion of the leaf were still there.

"I want to make the point very strongly that other laboratories all over the world are replicating this work," Dr. Moss said.

Another pioneering development in the phantom leaf research (apparently not previously reported by Simeon Kirlian and his late wife Valentina in Russia) was disclosed by Dr. Moss. For some reason, in June, July and August 1974 Kirlian photographs of phantom or energy bodies diminished until the images failed entirely. The mystery apparently was solved when it was hypothesized that the pattern shows up best in the spring when the leaf is coming into maturity and is being molded by the matrix of the energy body, whereas by summer it has reached maturity. Gradually in the normal course the leaf begins to die and ordinarily would fall from the tree and wither away. Perhaps the energy body would be the first to go, leaving fainter and fainter images on the radiation photographs until they disappear entirely. In the spring of 1975 new severed leaves again showed the familiar energy patterns, thus, at least tentatively, confirming the hypothesis.

The idea that all living matter is supported by an etheric nonphysical matrix or mold called the etheric body is almost as old as man. Dr. Moss referred to numerous experiments that seem to confirm the belief that this is true of animal forms as well as plants. She described the work of South American scientists who photographed the "auras" of caterpillars with radiation equipment. Color pictures were obtained showing "gorgeous" yellow, white and other colored emanations, but when the caterpillars were anesthetized the colors faded away until the larva died. This is consistent with the long-held tradition of many people that the etheric or astral body (Egyptians called it the "ka:) departs from the physical body at death. And presumably this is the same as the "etheric double" involved in spontaneous and experimental out-of-the-body experiences.

What of the controversy over the reliability of the Kirlian method as a research tool?

Numerous critics contend that most of the effects are electrical and photographic artifacts which in no way substantiate the concept of an aura or energy body and that the photos are unreliable because of the many variables involved--differences in apparatus, humidity, temperature, variations in finger pressure and many other factors that are not easily controlled.

Dr. Moss said, "In other laboratories in this country, in South America and in Europe, experimenters working independently are repeating our experiments and are obtaining the same sort of results that the Russians did."

This does not mean that the photographic patterns, the coronas and emanations are always the same, she pointed out, but rather that different conditions. However, she feels

significant conclusions can be reached on the basis of the experiments as a whole--for example, the replication of "phantom leaf" radiation images and the apparent picturing of healing energies, whether or not coronas or "auras" are consistently the same.

One of the leading critics of "extravagant claims" for the Kirlian technique has been Prof. William A. Tiller, Stanford University physicist. However, it was learned that he made a new preliminary report to the foundation somewhat amending his previous reviews on Kirlian photography. In part this report read:

"The contact photography technique was studied with controlled finger spacing, moisture control, etc., to see how the results would compare with the earlier transparent electrode studies. The results showed the same features as found earlier; i.e., the pictures were very reproducible, the finger spacing was critical in the obtaining of a particular and the non-blue colors came from discharges occurring on the back side of the film.

"These results strongly suggested that Kirlian photography had negligible utility for the obtaining of reliable and convincing data concerning altered energy or consciousness states in living systems. This made the principal investigator (Dr. Tiller) very unhappy.

"Recently, the picture has changed. The principal investigator now begins to see a mechanism whereby both his data and that of others may be compatible and whereby the Kirlian technique can be a valuable physiological state monitor."

Meanwhile, the whole field of psycho-energetics is widening on many fronts. Research is beginning to show that energies seemingly projected by the so-called "mind-benders" like Uri Geller actually can change the molecular structure of metals as well as affect laboratory instruments-compass and magnetometers, for instance.

In London Uri proved in Prof. John Taylor's laboratory at King's College that he can activate a Geiger counter with the energy produced by his will. (It indicated an emission 500 times greater than normal.) Among many other spectacular experiments, he "buckled" an aluminum disc inside a plastic container.

Professor Taylor reported, "I held my hands between his and the container to prevent any possibility of his directly manipulating the disc."

Uri also used his power to bend an aluminum strip enclosed in a wire mesh container, to break into several pieces a small crystal of lithium fluoride while it remained in a plastic container and to bend a small iron rod sealed in a "perspex" tube.

Dr. Taylor originally met Geller on a British television show on which he was to have been the "hatcher man" debunking the phenomena.



"Here was I," Taylor wrote later, "a trained physicist, a researcher for the past 20 years into the mysteries of matter and the mind, witnessing something that I knew I could not explain to myself--let alone to those millions of observers."

In Los Angeles Dr. Moss and her staff observed what Professor Taylor called the "Geller effect" and recorded Uri's mysterious power on film with Kirlian equipment. The resulting pictures seem to indicate that he can transmit his mental energy to a metal object so that its corona appears almost to pulsate with energy, as contrasted with the usual static discharges observed from inanimate objects.

Where is it all leading? Is psychic phenomena finally emerging from the mumbo jumbo of dark age superstitions into the light of scientific inquiry, with hard-core techniques in use to examine the phenomena? Is the subject of bio-energetics to be the new frontier of science?

Conceivably in time scientists will understand more about the psychic energy of the seance room, the "paraelectricity" postulated by Ambrose Worrall and Dr. Miller, the ectoplasm of Olga Worrall, the psychokinetic force that can move and distort objects without physical contact (as in poltergeist manifestations and the "Geller effect") and the apportation of materials over considerable distance.

Telepathy, the transmission of thought from person to person, also may yield to the tools of physical science. Some Russians think that electromagnetic radiation is involved, although metaphysicians generally insist it is a manifestation of different degrees of consciousness.

The various reports seem to indicate that the division between physics and metaphysics is narrowing and the "universal energy" spoken of by philosophers may be subject to rational examination.