

SWIFT



VOL. 1 NO. 1 1997

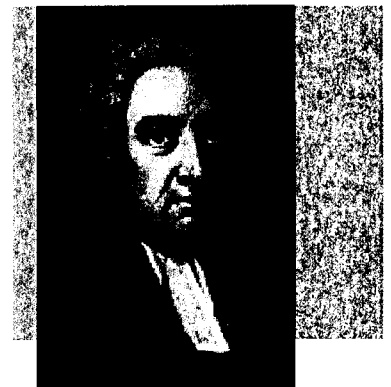
WHENCE SWIFT AND WHEREFORE ITS USAGE?

by James Randi

Jonathan Swift (1667-1745) was an Irish-born writer and satirist whose most enduring work, *Travels into Several Remote Nations of the World*, better known as *Gulliver's Travels*, delineates the adventures of Lemuel Gulliver. Gulliver encounters strange and wondrous peoples and places, lands of giants and tiny people, a dominant species of horse whose beasts of burden are a degenerate species of humans, and a floating island inhabited by spaced-out scientists and philosophers who hardly deal with reality.

Swift didn't please all his readers. He infuriated many, was threatened with lawsuits, and made enemies among many influential persons of his day, a situation with which I am not totally unfamiliar. But he was among the first to launch well-deserved and well-designed satirical attacks against the flummery — political, philosophical, and scientific — of his time, a tradition that was adopted and perpetuated by several of the publications that succeeded him. A century after his death, and perhaps in observation of that event, the British humor magazine *Punch* defined a variety of swindler thus: "The Quack is a personage too essential to the comfort of society to be deprived of his vocation. He is, in fact, the Physician of the Fools, a body whose numbers and respectability are by far too great to admit of anything of the kind." Alas, this definition stands today, all too accurate. The James Randi Educational Foundation (JREF) heartily endorses satire and wit as weapons to defeat the forces of crackpottery and quackery.

When British publisher Sir Richard Steele started the racy penny newspaper *Tatler* in 1709, he used one of Swift's noms de plume, Bickerstaff, to borrow on the great success of the satirist. We will dare to use his actual name here, in our new publication, paying homage and hoping that the association with such an illustrious historical character might lend a gloss to our efforts.



JONATHAN SWIFT,
FROM A PORTRAIT BY
FRANCIS BINDON

IN THIS ISSUE

1996 PIGASUS AWARDS	2
A TEST OF DOWSING IN GERMANY ...	3
MASSIMO POLIDORO	
THE HUMAN MAGNETS	10
BOB PARK	
PREDICTING THE PAST	12

THE OFFICIAL 1996 PIGASUS AWARDS FROM THE JAMES RANDI EDUCATIONAL FOUNDATION

ON APRIL 1ST, WE AWARDED THE COVETED PIGASUS PRIZES IN FOUR CATEGORIES, FOR ACCOMPLISHMENTS IN THE PERIOD JANUARY 1, 1996 TO DECEMBER 31, 1996. THE AWARDS WERE ANNOUNCED VIA TELEPATHY, THE WINNERS WERE ALLOWED TO PREDICT THEIR WINNING, AND THE FLYING PIG TROPHIES WERE SENT VIA PSYCHOKINESIS. WE SENT; IF THEY DIDN'T RECEIVE, IT'S PROBABLY DUE TO THEIR LACK OF ABILITY. THIS YEAR, WE AWARDED THE PRIZES TO:



THE SCIENTIST WHO SAID OR DID THE SILLIEST THING RELATED TO THE SUPERNATURAL, PARANORMAL OR OCCULT...

Scientist/physicist Ed May. May headed up the CIA "remote viewing" project which consumed \$20 million of our tax money on "remote viewing," a technique said to bypass time and space to obtain secret information via "gifted psychics" on the CIA payroll. The 10-year project provided no useful or accurate data, and former CIA director Robert Gates implied that pressure from members of Congress drove the CIA's involvement. This failed project was enthusiastically supported by Sen. Claiborne Pell (D-RI) and Rep. Charlie Rose (D-NC).



THE FUNDING ORGANIZATION THAT SUPPORTED THE MOST USELESS STUDY OF A SUPERNATURAL, PARANORMAL OR OCCULT PHENOMENON...

Robert Bigelow of the Bigelow Tea family. Mr. Bigelow not only gave large sums of money to Harvard University's Professor John Mack and to million-seller author Bud Hopkins on the strength of their "alien abduction" beliefs, but also

purchased (for a purported \$230,000) a "haunted ranch" in Utah where UFO attacks and "inter-dimensional portals" had shown up in the wake of mysterious "cattle mutilations." Mr. Bigelow, perhaps understandably, lives in a walled-in home in Las Vegas.



THE MEDIA OUTLET THAT REPORTED AS FACT THE MOST OUTRAGEOUS SUPERNATURAL, PARANORMAL OR OCCULT CLAIM...

Divided among the multitude of newspapers, magazines, TV programs, and radio shows who have continued — despite the wealth of contrary evidence — to perpetuate the myth known as The Roswell Incident, which claims that an alien spacecraft crashed near Roswell, New Mexico in July 1947, and that bodies of the aliens were spirited away by U.S. government agencies. The very lucrative UFO/tourist trade (90,000 tourists a year) that resulted has supported Roswellians handsomely ever since. The media have ignored the fact that the "UFO museums" are only collections of newspaper clippings, and that the owner of the property where the aliens are said to have crashed charges \$15 a head to see the spot, while the town officials have moved

the "authentic" site onto land owned by the U.S. Forest Service, due to the uncooperative land owner. And, not one scrap of wreckage has ever been produced! The U.S. Air Force explanation, that once-top-secret Project Mogul was the source of the crashed UFO debris — balsa wood, mylar foil and tape — continues to be ignored.



THE "PSYCHIC" PERFORMER WHO FOOLED THE GREATEST NUMBER OF PEOPLE WITH THE LEAST EFFORT...

"Psychic" Sheldon Nidle of Walnut Creek, California. Nidle predicted that the end of the world would come on December 17th, 1996, when "millions of spaceships" accompanied by angels would arrive along with "the Photon Belt." He assured us that we would have "16 years of light 24 hours a day" after the Photon Belt "hits [our] pineal glands." This would "activate all 12 strands of [our] DNA." When December 17th apparently came and went without the promised events being evident, Sheldon explained that we naturally were unaware of the fulfillment of his prophecy, since we are now living in a special holographic projection created by the angels, and we've been given another chance to make good. What a relief!

—J.R.

A DEFINITIVE TEST OF THE DOWSING CLAIM PART ONE

The following feature article originally appeared in the January 1991 issue of Skeptiker, the German skeptics' journal. It will appear here in two parts. This series of tests was probably the most carefully-designed and implemented experiment ever done on this very old and revered notion that underground water and hidden materials can be sensed by individuals using sticks, rods or other such devices. We attracted 19 dowsers from all over Europe, of all ages and both genders, eager to win the 20,000 Deutsche Mark (DM) prize. The Hessische Rundfunk TV network paid the expenses of setting up this extensive set of tests, with the intention of videotaping it in detail and producing a one-hour TV special on the project. They gave us the use of a property adjacent to their headquarters outside Kassel, Germany. What follows is a report that appeared in Skeptiker. We are much indebted to Ms. Jutta Degener, who favored us with this exclusive translation.

After more than a year of preparations that involved many different disciplines, the first original project of the German skeptics' organization, GWUP (Gesellschaft zur wissenschaftlichen Untersuchung von Parawissenschaften, Society for the Scientific Examination of Parasciences), was conducted in November of 1990, at the city of Kassel, 100 miles north of Frankfurt. For these dowsing tests, a carefully-designed methodology was of prime importance, and despite limited financial resources, reliable procedures for control and security were developed. Obviously, results of such tests would have to be acceptable even by critics who had just recently accused the skeptics, who they felt were "brimming with incompetence" and full of "frivolousness." It is now hoped that after the exemplary Kassel tests, such outbursts will have become a thing of the past.

THE KASSEL DOWSING TEST

By Robert König, Jürgen Moll, and Armadeo Sarma

CONCEPT AND PLANNING

The idea of a dowsing test is nothing new, as we can see from the abundance of reports and results from the past. Two reasons nevertheless compelled the GWUP to plan and conduct such a test.

First, the research conducted so far appears to be known to only a small circle of scientists and interested amateurs, and moreover, has produced somewhat contradictory results. This fact has brought about a polarization of opinions about the dowsing phenomenon with the pub-

lic and in scientific disciplines, and has thus fostered a climate where roughly 10,000 active dowsers in Germany alone can generate a conservatively-estimated annual revenue of more than 100 million DM (US\$50 million).

Second, we are of the opinion that tests of extraordinary claims require particularly careful design and control of experiments. In spite of considerable expenditures of time and money, the 1988 scientific investigations in German-speaking countries have, sometimes blatantly, lacked that care. This raises ques-

tions about their scientific validity. It therefore appeared necessary for us to design a test which would do justice to the phenomenon we were investigating and which would be a good example of proper scientific treatment of the parasciences.

DESIGN AND PREPARATION

With these self-imposed goals, the GWUP entered the design and preliminary phase of the dowsing test in the summer of 1989. In this phase, a most important impetus came from the well-known Ameri-



A BAVARIAN DOWSER INTENTLY APPROACHES THE MARKED POSITION OF THE BURIED PIPE, FORKED STICK AT THE READY.

photo by James Randi

can illusionist and active skeptic, James Randi. He made the US\$10,000 prize he had been offering for more than 25 years available to any successful dowser in our tests. Members of the GWUP contributed considerable knowledge and experience from various scientific areas to the planning activities. Finally, we found another partner in the "Hessische Rundfunk" (the Hessian state-owned broadcasting station). They provided us with a suitable environment and infrastructure, played an important role as a neutral observer by recording the tests on videotape, and afforded us effective access to the public. In late summer of 1989, we publicly announced our test with a press release and thereby made the first contacts with potential participants; in reaction to the numerous media reports, about 100 dowsers contacted the GWUP. In the following months, we tried to gain a clear impression of what kind of abilities were being claimed by means of a series of letters and a questionnaire. It turned out that a majority of prospective dowsers claimed the ability to locate running water in pipes. We therefore decided in the spring of 1990 to base the dowsing experiments primarily on this form of test. In addition, some dowsers indicated their ability to sense different kinds of substances (base metals, precious metals, coal, oil, magnets, etc.). This prompted the development of a second class of tests which we could offer the participants as an alternative or an addition. For effective coordination of the preliminary activities, the GWUP board of directors had al-

ready established a four-person committee in February which took over the task of technical design. For this, a list of requirements was derived from the aforementioned conditions to ensure that a proper scientific examination of the phenomenon would result. Thus, the test had to meet the following requirements:

(1) The test conditions had to be suitable for proper testing of the claimed abilities. (2) The hypotheses that were to be tested had to be defined precisely, so that the results would either confirm or deny it. (3) It had to be ensured that no ability other than the one claimed could lead to a positive test result. Such unwanted effects can be induced both consciously and unconsciously. Therefore, a double-blind test was imperative. (4) The likelihood of success in the test by chance alone should be sufficiently small. Since these were extraordinary claims that contradicted fundamental scientific experience, a high level of statistical significance should be required for a success to be achieved. (5) The participants would have to explicitly approve of and agree with the conditions of the tests.

Admittedly, controls (item 3) can only ever be relative. Given sufficient technical aids, it is in principle always possible for a deliberate deception to succeed. That is why James Randi's advice was very important for the project. He helped set sufficient controls. Based on these requirements, the committee worked out alternative approaches for the project's technical realization. Simultaneously, the potential participants were notified of the progress

of the preparations and of the protocol requirements. After extensive preparatory talks with the Hessische Rundfunk, including multiple visits to the location in Kassel, and after a continued and very productive consultation with James Randi, we settled on a simple but effective design for the experiments.

TECHNICAL DESIGN

Probably the simplest imaginable task for a dowser who is supposed to locate running water in pipes is a direct yes-or-no decision. Following this premise, we defined the tasks as follows: Decide whether there is water running through a subterranean pipe with known location. Each participant should make this decision on thirty separate runs. In exchange for a total prize money of 20,000 DM, we expected 25 correct answers, a success rate of 83%. If successful, this result had to be reproduced in a second test, again with a success rate of at least 83%. For the second kind of test, the task was specified just as accurately: In which of ten plastic containers is an item previously selected by the participant? In these tests, we limited the number of single runs to ten and the necessary hit rate to 80%, equivalent to eight hits. Here, too, we demanded the reproduction of a successful result in a second set of tests.

From the above, we derived the following hypotheses to be tested:

(a) Dowsers can in at least 83% of all cases tell whether water is running inside a plastic pipe or not, whereas the expected chance success rate for this is 50%.

(b) Dowsers can in at least 80% of all cases tell in which of 10 boxes a previously agreed-on item is located, whereas the expected chance success rate for this is 10%.

The results demanded were below the abilities claimed by the dowsers. They themselves claimed a success rate of at least 90% or, usually, 100%. Based on the hypotheses, two outcomes were possible:

1. The dowsers would produce the required results. This would indicate the possible reality of the dowsing effect.

2. The dowsers would not produce the required results. If the results of the group of dowsers were distributed as would be expected according to chance, that would confirm the chance hypothesis. But if the distribution were to differ significantly from the chance expectation, this could serve as a starting point for new experiments using new hypotheses. Of course, this would only apply to the tested dowsers and the agreed-on conditions.

These clear conditions and tasks defined the technical design of the experiments to a great extent. The final layout of the experiments was, apart from the simple technical constraints, also influenced by the conditions listed under the second possibility above, and in addition had to take the natural features of the test site into account. All these considerations resulted in the experiments described here. They were carried out in the beginning of November 1990 at the Hessische Rundfunk facility in Kassel. The setup for the "water test" consisted of a rectangular pipe system a total of 40 meters

(130 feet) in length, which was buried 50 centimeters (20 inches) deep under meadow soil. The plastic tubes used had an inner diameter of 5.7 centimeters (2.25 inches). Since the area was naturally inclined, gravity assured a sufficiently copious flow. The system was fed from a 400-gallon container placed above the pipes. On the downhill side of the rectangle, the water drained into a similar container, from which it was pumped back up to its original container through another pipe by a motor pump. The closed cycle thus formed was controlled by three valves placed on the line connecting the storage container and the rectangle of pipes:

1. Main valve (On/off valve)
2. Vent, guaranteeing the complete evacuation of a previously flooded line
3. Two-way valve, used to control the direction of the flow through two possible lines: (a) into the test line (main line); (b) into the bypass (side line).

Identical conditions regarding noise and vibrations were assured by having water flowing in every case. That completes the description of the technical components of this setup, emphasizing its desired conceptual simplicity. A distinct advantage of this factor is that it makes it easy to check both the technical parameters and the settings and dowsers' statements to be recorded. This cannot be underestimated and is a mark of quality in such tests. That simplicity is also found in the design of the "box experiments." In an adjoining barn, ten opaque plastic boxes of identical construction were

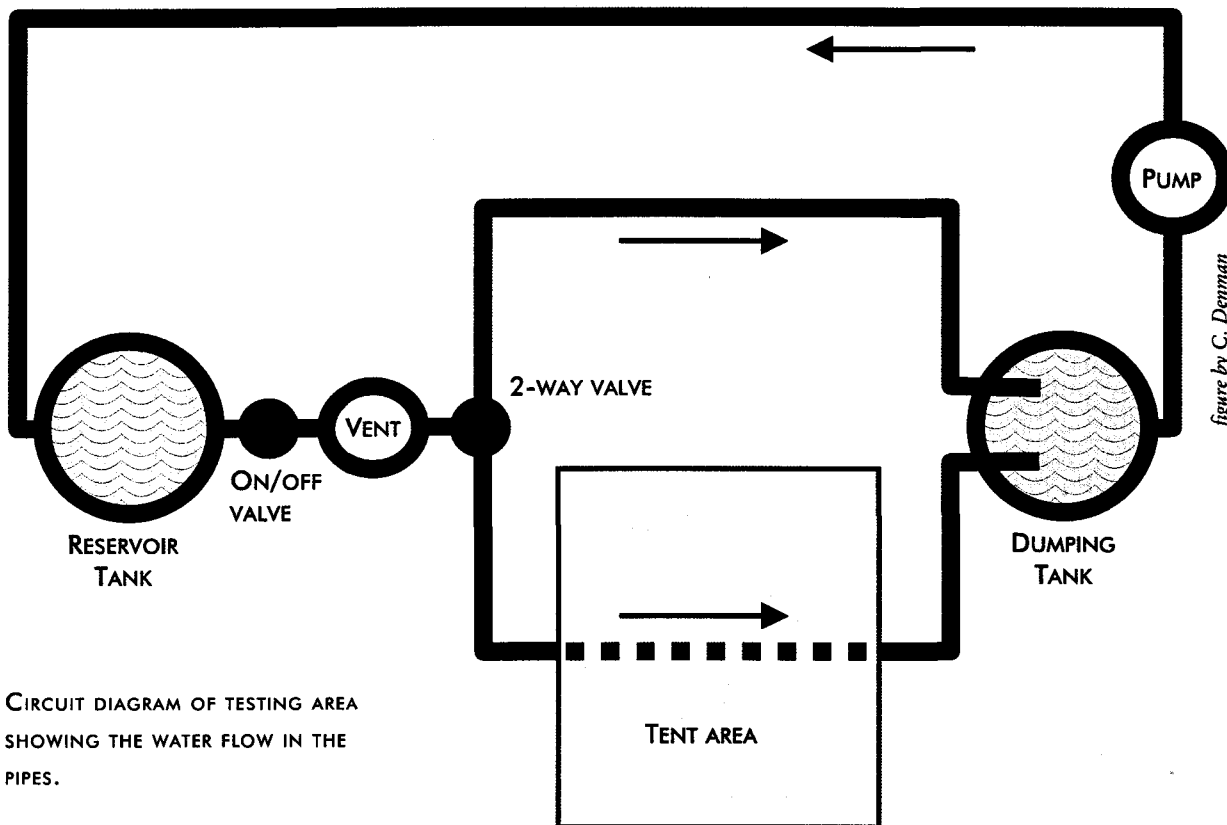


figure by C. Denman

CIRCUIT DIAGRAM OF TESTING AREA SHOWING THE WATER FLOW IN THE PIPES.

placed on a bench and clearly numbered from 1 to 10. Each participant could choose an item from the following list: iron, coal, gold, silver, magnet, copper.

The selected material then had to be located in one of the ten containers by the dowser. More so than with most other scientific experiments, the investigation of parascientific claims demands special controls and security. A qualitative statement about the claimed abilities based on test results is permissible only if two requirements have been unconditionally met:

- Double-blind tests
- Complete documentation

The following description of the course of events, the recordings and

the complete suppression of unwanted paths of information shows how much value was placed on meeting these requirements.

PROCEDURE

The "water test" course itself, and the participants and the test supervisor, were located inside a closed 8 X 6-meter (26 X 20-foot) tent. This testing space was crossed by the subterranean line across a span of 20 feet as shown in the figure above. We laid out the tent's interior with artificial turf and marked the path of the line with brightly-colored plastic tape, accurate to the nearest half-inch. Around the valve area we built a closed shack in which two experimenters were busy setting up and documenting the individual runs.

Additionally, a video camera recorded all the setup (randomization, valve-operation, step-cuing) procedures. The receptacle tank (drain tank) on the other side of the tent was covered with strong wooden boards and was under surveillance at all times. In addition, the whole area was cordoned off, giving access to no one except participants, observers and representatives of the media. Before the actual tests began, we checked extensively whether the system was watertight and functional. We also measured the time it took to fill and to empty the pipes. This allowed us to minimize the communication between the observers during the tests. Before every trial run, the system was in a neutral state; that is, the main valve was closed, the air



▲ THE "SWITCHING SHED" (LEFT) AND ACCESS TO THE MAIN TENT. AMARDEO SARMA OF THE GWUP (IN CAP) CHATS WITH A DOWSER WHILE THE HESSISCHE RUNDKUNDTIMMUNG TEAM VIDEOTAPES THE EVENT FOR THEIR PLANNED TV SPECIAL ON THE TESTS.

USING THE "PARALLEL RODS" TECHNIQUE, A DOWSER LOOKS FOR A SIGNAL AS HE PASSES THE TEN BOXES, ONE OF WHICH CONTAINS THE TARGET: A BAG OF GOLD COINS. ►

photos by James Randi

valve open, and the two-way valve was in the middle position. The test supervisor in the tent area with the dowser started every single trial by loudly announcing the number of that run. Simultaneously, he started a stopwatch. Prompted by that, an experimenter in the wooden shack decided the random position by drawing a marked ping-pong ball from a bag. The valves were set (water/no water thru the tent) according to the marking on the chosen ball. The task of the second person in the shack was to record the settings and control the schedule with a second stopwatch. After 30 seconds had passed and the water flow was begun, either through the test area or around it, the head experimenter signaled the participant, who

then attempted to determine the current condition of the flow. Also, simultaneously, the observer at the receptacle tank checked and recorded the state of the system. After the dowser had arrived at a yes-or-no decision, the supervisor gave an acoustic signal, restarted his stopwatch, and recorded the decision in writing unless the participant had done that already. Within another 30 seconds, the pipe was drained and the system was brought back into the neutral state described above. The "box experiments" were comparatively simple and easier to conduct. First, an experimenter decided in a procedure similar to the "water test" which box a selected item should be placed in. The number of the box was recorded and the item placed in

it. The experimenter then left the testing grounds and signaled acoustically to another observer that the test was set up. The observer then entered the testing ground together with the participant and recorded the participant's statements about the location of the item. The chance selection and the set up and the decision of the participant were recorded with a stationary video camera. So here, too, three independent records were available. This strictly formalized schedule ensured complete double-blindness on one side and multiple, independent protocols on the other. Voluntary or involuntary manipulations during the tests both from the experimenters and from the participants were thus, to the best of our knowledge and ability, excluded.

DECLARATIONS BY THE DOWSERS BEFORE AND AFTER THE TESTS

DECLARATION

I DECLARE THAT I HAVE BEEN GIVEN SUFFICIENT INFORMATION ABOUT THE TESTS BY THE GWUP AND BY JAMES RANDI BOTH VERBALLY AND IN WRITING. IN PRE-TRIAL RUNS, I HAD THE OPPORTUNITY TO ADJUST MYSELF TO THE CONDITIONS, AND I FEEL PHYSICALLY AND PSYCHICALLY ABLE TO SUCCEED IN THE TEST UNDER THE GIVEN CIRCUMSTANCES.

DECLARATION

I DECLARE THAT THE TESTS WERE CONDUCTED IMPECCABLY. THE TEST CONDITIONS AND THE SCHEDULE HAVE IN NO WAY IMPEDED ME DURING THE TESTS.

During the whole project, particular attention was paid to informing and involving the participants. The test could be meaningful and significant only if the participants shared our opinion that the test could lead to a definitive statement about their claimed abilities. To ensure equal treatment of all participants, we distributed all information in writing and formalized the further treatment before and after the actual tests according to the following pattern: After the official greeting by the GWUP and James Randi, each participant was supplied with extensive written information on the design of the test. Contained in it was a questionnaire we had developed. In it, all participants confirmed that at least one of the aforementioned test formats was suitable for testing their abilities. All participants also declared that they had been given sufficient information about the tests both in writing and verbally. Then we led the dowsers individually to the testing grounds in a previously determined random order. On location, we showed and explained the technical details and the schedule. Every participant was then asked to probe the testing grounds with the dowsing instrument for any possible natural sources of interference (buried metal, water, oil, etc.). Any anomalies that they thought they'd found were recorded and the locations were transferred onto an accurate scale map, so that we could offer an area during the actual tests that was certain to be free of extraneous interference. Additionally, each participant confirmed that any interference that they'd found would not

diminish his or her abilities. These assessments were performed by each participant individually before being taken to the holding area, so that no one might communicate findings to the others. Immediately before we did each set of the actual individual trial runs, we held designated "open trials" with each of the dowsers, in which the participant knew the current setting (water/no water) of the experiment. Thus, they could familiarize themselves with the two possible states as experienced at that site. (All the participants scored 100% when tested this way.) Finally, after the open trial run, each participant signed the statement shown on the left.

The preceding list shows the singularly careful design of these tests, a necessary precondition and an indication of the validity and the scientific value of the results. Here, too, the Kassel dowsing test can be considered exemplary, and once again we have demonstrated the special requirements of experimental testing of parascientific claims. ■

IN OUR NEXT ISSUE: THE TESTS COMMENCE, ARE COMPLETED, AND THE EAGER DOWSERS GATHER TO HEAR THE RESULTS ANNOUNCED.

SWIFT JUSTICE

IN THIS FIRST ISSUE OF *SWIFT*, A NOD TO THOSE WHO HAVE GONE BEFORE.

Chip Denman is manager of the Statistics Laboratory at the University of Maryland, where he teaches "Science & Pseudoscience" for the University Honors Program. E-mail: denman@umail.umd.edu

by Chip Denman

As the 17th century drew toward its close in 1699, almanac-maker and popular astrologer John Partridge threw down the gauntlet to his rivals:

"I do friendly and fairly Invite and Challenge my Adversaries...who value themselves as Masters of the Art, to pitch upon five or ten Nativities [astrological charts] ... to tell us when they will Dye, with the Astrological reasons thereof. And I will take the same Nativities, and treat of all those particulars according to my Method and Principles, and then every man may be judge who is true, and Master of his Trade, and who not."

Partridge reissued his challenge in 1704 and 1706.

A skeptic couldn't ask for a better opportunity. And Jonathan Swift, arch-skeptic of human folly, did not resist.

Swift adopted the pen name Isaac Bickerstaff, Esq., and in January wrote *Predictions for the Year 1708, Wherein the Month, and Day of the Month, are set down, the Persons named, and the great Actions and Events of next Year particularly related as they will come to pass.*

In full satirical voice, Swift/Bickerstaff wrote from the view of a True Master astrologer much disgusted with the common corrupted practice:

"Having long considered the gross Abuse of Astrology in this Kingdom;

upon debating the Matter with my self, I could not possibly lay the Fault upon the Art, but upon those gross Imposters, who set up to be the Artists. I know, several learned Men have contended, that the whole is a Cheat; that it is absurd and ridiculous to imagine, the Stars can have any Influence at all upon human Actions, Thoughts, or Inclinations: And whoever hath not bent his Studies that Way, may be excused for thinking so, when he sees in how wretched a Manner this noble Art is treated, by a few mean illiterate Traders between us and the Stars..."

Swift's observations are as pertinent now as then. Referring to the general nature of astrological predictions, he wrote:

"Then, for their Observations and Predictions, they are such as will equally suit any Age or Country in the World. This month a certain great Person will be threatened with Death, or Sickness. This the News-Paper will tell them..."

In typically Swiftian fashion, he went on to claim his own mastery of the art by making his own quite specific predictions. Chief among them ("but a Trifle; yet I will mention it") was that Partridge would die with a raging fever at 11 o'clock at night on March 29th.

A lesser curmudgeon might have stopped the joke there. But Swift, at the end of March, following a blustery response from a thoroughly

steamed Partridge, picked up pen again and produced the ultimate rejoinder: *The Accomplishment of the First of Mr. Bickerstaff's Predictions, Being an Account of the Death of Mr. Partridge the Almanack-Maker* [sic].

Like any good soothsayer, Swift/Bickerstaff boldly claimed a direct hit, never mind that an increasingly irate (and very alive) Partridge continued to rail. Others joined in the conceit, and soon numerous tracts (with and without Swift) offered proof and vindication of Bickerstaff's powers. Some were taken in — the Stationer's Hall removed the "deceased" Partridge from its rolls and obtained official permission to continue publishing his almanac in his name!

Bickerstaff's proofs were the sort to make a skeptic smile. He pointed out that readers of Partridge's almanac continually swore that "no man alive ever writ such damned stuff as this." Q.E.D!

Swift's intentions in all of this were varied. He did hold astrology and quackery of all sorts in low regard. Partridge, as a very public purveyor of questionable wares, made a tempting target. But Swift had a social and religious, rather than a scientific, agenda. Swift, ordained (and later a dean) in the Church of England, singled out Partridge from

CONTINUED ON PAGE 15



THE HUMAN MAGNETS

by Massimo Polidoro

Massimo Polidoro is the European representative for the JREF; he is also researcher for CICAP (the Italian Committee for the Investigation of Claims of the Paranormal), an expert in the techniques and psychology of deception, the author of various books dealing with critical examination of paranormal claims, and a graduate student in psychology at Padua University.

E-mail: polidoro@aznet.it

*CICAP's Web page can be reached at:
<http://www.valnet.it/cicap>*

One paranormal claim that has recently attracted much interest in various parts of Europe is the one about so-called "human magnets." According to magazine accounts and TV shows, there are people whose bodies behave like magnets and can attract metallic (and non-metallic) objects.

The first examples of such phenomenal people came from Russia, then some appeared in Western European countries¹, and soon more were cropping up all over Europe. Italy was no exception. We, too, had our share of "human magnets," and at CICAP (the Italian Committee for the Investigation of Claims on the Paranormal), we examined four of them on separate occasions.

First was a very deluded woman, Miss L., who believed she could "magnetically" keep a pen or a Bic lighter attached to her inclined hand; the fact that the objects fell off as soon as she started to bring her hand to a critical vertical angle didn't mean much to her.

Second were Mr. and Mrs. Baroni, professional "psychic healers" and amateur "magnets." I met these two people on a TV show, but despite the inadequacy of the setting for a scientific test, it became quite evident that they, too, were fooling only themselves. Mrs. Baroni of-

fered exactly the same demonstration that Miss L. had previously given for CICAP. As for her husband, it was clear to the audience that the pieces of cutlery that he kept putting on his chest only stayed there because of the natural friction offered by his skin; his large stomach helped, too. When I asked that he bend forward, he began to do so, but as soon as spoons and forks began sliding off his body, he stopped, saying that in such a position the "psychic force" was weakened.

The last "human magnet," Miss Rita Cutolo, was a woman who had gained a lot of publicity for her psychic healing business by giving demonstrations of her magnetic powers on TV talk shows. Her demonstration consisted of holding two bottles full of water apparently attached to her open hand. My colleague Dr. Luigi Garlaschelli² and I had a chance to watch her perform before us; however, we weren't allowed to properly examine her hands or to institute stricter control conditions.

This case would need much more space to be fully told. Suffice it to say that: a) all of the witnesses (including Dr. Piero Cassoli, Italy's leading parapsychologist) agreed that her demonstrations didn't present any psychic aspect and were patently due to some physical action,



MR. BARONI, THE
"MAGNETIC MAN" OF
ITALY, WITH ASSORTED
CUTLERY MIRACULOUSLY
CLINGING TO HIS BODY.

"...as soon as spoons and forks began sliding off his body, he stopped, saying that in such a position the 'psychic force' was weakened."

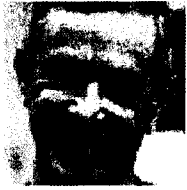
b) Dr. Garlaschelli clearly had the sensation, when shaking hands with her before the performance, that her hand was "somewhat sticky," c) when she was asked to put talcum powder on her hands, and did so, the phenomenon ceased, d) the phenomenon only worked on smooth surfaces, not on cloth or fabric, e) when it was proposed to conduct a chemical analysis of the surface of the skin and, subsequently, to wash her hands with solvents, the proposal was rejected, and f) once we were at home with our colleagues, we were able to reproduce all of her demonstrations by quite natural means.

We requested another chance to meet with Miss Cutolo; on such a visit, we had intended to conduct a complete chemical analysis of her hands and then observe her performing under various test conditions. A meeting was promised by Miss

Cutolo, but it never materialized. In the end, we were told that she didn't want to meet with us again because such meetings appeared to be very stressful for her health. Oddly enough, we recently read an interview with Miss Cutolo in which she stated that CICAP's investigators examined her "under the strictest controls" and even "washed her hands with trichloroethylene" but were unable to explain her phenomenon. Now, this would have been something! We only wished we had been present when such a demonstration took place!

NOTES

- 1) Randi, too, had a chance to examine a few "magnetic ladies" in Hungary (see: *Skeptic*, Vol. 1, No. 1, Spring 1992, p. 27-28).
- 2) Dr. Garlaschelli also developed a close approximation of the substance known as the "Blood of St. Januarius," which liquefies during religious ceremonies in Naples.



FUTURE SCHLOCK: PREDICTING THE PAST

by Bob Park

Robert L. Park is professor of physics at the University of Maryland and director of public information of the American Physical Society. He writes a weekly commentary on science issues that is widely read by scientists, science journalists, and government officials. He is also a frequent commentator on the op-ed pages of major newspapers and on television and radio news programs. A former chairman of the Department of Physics at the University of Maryland, he is the author of more than a hundred scientific papers in experimental surface physics. He is currently working on a book with the tentative title *Voodoo Science*.

E-mail: park@aps.org

My problem is not with tabloid psychics, whose modest claims to foresee the future rarely go much beyond predicting marital troubles for Hollywood celebrities. Nor am I much troubled by Madame Zelda, whose sign in the window above the deli simply promises “readings.” Zelda will read tarot, tea leaves, palms — whatever you feel comfortable with. There is no deception here. Zelda will give you the most accurate prediction possible within the limitations of the techniques she uses.

It’s “futurists” that get me going. People who call themselves futurists are in big demand in Washington, where they get paid fat consulting fees for telling “planners” what to plan for. And they don’t mess around with next year; they prefer to think in terms of 20 years, or a century, or a millennium. They can spend their entire working life cranking out predictions of what things will be like after they are safely retired. Jeanne Dixon, at least, put her reputation on the line every year. Of course, no one, except maybe the staff of the *Skeptical Inquirer*, ever bothers to look back and see if she got it right the last time. I mean, who really cares? Only the terminally foolish take psychics and fortune tellers seriously anyway.

By contrast, otherwise intelligent people are inclined to view futurists as deep thinkers — the further ahead they project their minds, the deeper they must be. How do they convince anyone to take them seriously? Well, they do it the same way that Madame Zelda does it. People eagerly embrace predictions that resonate with their own fears, or hopes or religious convictions. A successful futurist, like a successful fortune teller, must be in tune with the public mind. In short, tell them what they want to hear — and make it interesting. As the millennium draws near, we’re going to see an avalanche of futurist books and articles.

A few years ago, U.S. Coast Guard planners hired the Arlington Institute to tell them what the world would be like twenty years down the road. The result was *The Road to 2012*, 348 pages of clairvoyance. It’s a good example of the sort of “deep thinking” you can expect from futurists. One learns, for example, that by 2012 we will be tapping the zero point energy of the vacuum. The technology for this, the Coast Guard planners are told, is “revolutionary,” but unfortunately it is “protected by international patents.” (I suppose it’s being suppressed by the oil companies.) Cold fusion, the report explains, is merely a manifestation of zero point energy. Or consider this: “Dozens of studies have shown that prayers and meditations of widely separated individuals correlate with significant improvement of the health and well-being of others.” It does not say whether prayer also

works when people are close together. How about: "The well known phenomenon of dowsing may be a spontaneous muscle twitch due to extremely low intensity geophysical fields as one moves over a geological gradient." My personal favorite: "Herpes has been linked to loneliness." The study didn't say if it was cause or effect.

How, I asked myself, could I find out how much the taxpayers were soaked for all this deep thinking? Perhaps the answer lay in the report itself: "Remote perception, or the ability to ascertain information non-locally, has been demonstrated.... Mind interacting with matter transcends the limitations of ordinary space-time." I decided to try it. The particular non-local means I employed was the telephone. With it, I was able to transcend the space-time limitations of the U.S. Coast Guard bureaucracy and determine that the cost to the taxpayers was \$100,000.

Now let me make clear that I'm not against making predictions. I'm a physicist, and making predictions is what physics is all about. If we know the current state of a system, a knowledge of the laws of physics enables us to predict, within well-defined limits, the state of that system at any future time. So why is that any better than Madame Zelda's readings or the projections of a highly-paid futurist? After all, you still can't be sure unless you wait and see what really happens, can you? Well, you can be pretty sure. In the physicist's prediction, time is just a variable. You can give time a nega-

"Science has a way of getting to the future without consulting the oracles who insist they have it all worked out."

tive sign and see if that accounts for what has already happened. That's very powerful stuff. If you can't predict the past, you needn't bother with the future.

But some physicists don't stop at predicting the future; they think they can invent it. Princeton physicist Gerard O'Neill proposed building space colonies to absorb Earth's excess population. He imagined them as giant rotating cylinders, providing gravity for the inhabitants. The media and the NASA public affairs office loved O'Neill's space colonies, and he supplied them with ever more detailed plans and drawings of life on "Island One." It always looked like an affluent suburb, with trees and lawns and lakes. The reality is the space station. Four astronauts will be crammed into a "can" as spartan as Alcatraz at a cost that threatens to bankrupt the entire space program.

K. Eric Drexler, one of O'Neill's followers, sees a world in which incredibly tiny robots, called "assemblers," will do all the work. They will stack atoms together to make television sets or beef steak. Fleets of them will stream through your body making repairs. Is this possible? Of course it is. Countless little machines are already being transported through your circulatory system, destroying invaders and patching up damaged DNA. Other

tiny machines called enzymes are assembling raw materials to make beef. That's what a cow is all about. While Drexler turns out fanciful designs of his tiny machines, physicists have already figured out a way to image individual atoms, and under certain conditions even manipulate them, using the Scanning Tunneling Microscope. This is exciting stuff, but the scientists who invented the STM weren't trying to build an "assembler," and they never heard of K. Eric Drexler. They just wanted a way to study the fundamental interactions of atoms on a crystal surface. Science has a way of getting to the future without consulting the oracles who insist they have it all worked out. Drexler is simply irrelevant. The historian Arnold Toynbee once explained how he managed to be so productive: "I learn each day what I need to know to do tomorrow's work." Science advances in much the same way. With each hard-won insight, the scientist pauses long enough to plot a new course, designed to take advantage of what has just been learned. If you try to focus on too distant a goal, you may find the way blocked by a crevasse that didn't appear on the map. You make better time if you follow the contours of the terrain. The excitement is in not knowing where it will take you. ■

THE LIMITS OF CRITICAL THINKING

GUEST COMMENTARY

Jamy Ian Swiss is a professional magician and a co-founder of the National Capital Area Skeptics. E-mail: 71031.325@compuserve.com

by Jamy Ian Swiss

The recent self-inflicted deaths of 39 members of the Heaven's Gate cult raises challenging questions for skeptics. We are tempted to point in horror and issue our own doomsday admonitions: "Warning! Danger! These are the hazards of belief in UFOs and other goofy stuff! Beware! Lack of critical thinking skills equals madness equals death!" If only these particular victims had read *Randi's Flim-Flam!*, they might be living, productive members of society today.

Or maybe not.

My experience with deception has proven to me that the human brain is evolutionarily programmed to be readily manipulated, whether by the likes of itinerant conjurors like myself and James Randi or by virulent megalomaniacs like Marshall Herff Applewhite. The human tendency to organize information even where no useful information exists appears to be hardwired into our brains. It was there for the first aboriginal rain dance, and it's here today for the most contemporary forms of magical thinking. That tendency to organize, to look ahead and be creative and surmise from thin evidence is a distinctly human trait, as responsible for the greatness of the human condition as it is for its follies and failings. Our human "big brain" is an accident of evolution that

may well be our salvation or undoing as a species, with its abilities to invent, create, explore and imagine, or to become addicted, depressed, or believe incredibly dangerous ideas in the face of all evidence to the contrary.

When we see the apparently placid willingness of the Higher Source cult members to fulfill their grisly task of self-destruction, it is difficult to view them as victims. Considering the patently ludicrous ideas the cult based its belief system on, it's tempting to write the followers off as cranks who were victims only of their own willful stupidity. But the phenomenon of cultism is characterized by distinctly manipulative practices of recruitment and maintenance that must be considered independently of the particular belief system they happen to be promoting. Toxicly effective cult leaders like Herff Applewhite will always produce followers who swear to their willing allegiance and free choice — just as the observer of a magic trick will swear he never looked away the whole time the magician's spoon was magically bending. Both victims are certain they had all the information necessary to make a capable judgment.

The issue of psychological manipulation is a graduated continuum, from the person fooled by the

spoon-bender to the cult victim controlled to the point of suicide. But if the cult member is a victim of a psychological predator, what about those in the free marketplace of ideas who elect to repudiate conventional medicine and sign on with a homeopathic practitioner? The wiring flaws of the human brain notwithstanding, isn't the homeopathy user a victim of willful ignorance?

Such individuals have to be given full responsibility for their lives to muck about with as they wish. We are overwhelmed by such examples of "epistemological hedonism," i.e., if it feels good, believe it. Education doesn't protect those who believe irrespective of facts and information. Those who become hostile and defensive the moment we question, for example, the concept of astrology do so because such questions challenge their entire view of world and self, not simply—as skeptics are inclined to consider it—the specific facts concerning a narrow subject matter, easily disproved.

As skeptical educators we must do more than simply provide cautionary signposts detailing a shopping list of road hazards labeled astrology, ufology, and a host of other pseudologies. We recognize that we must encourage broad-based thinking skills to help inoculate people against malicious crackpottery. That

training must begin early in life, because it is the rare adult who comes to recognize the logical flaws in their own longstanding belief system. Our task is to teach the young—along with anyone else who will listen—to think for themselves, so that they can use these skills throughout their lives. Rational inquiry isn't merely an academic exercise or a chore that protects us from danger. Critical thinking enhances individual responsibility by liberating us to assess risk and embrace informed choice and thereby more fully savor the human experience. Unfortunately, thinking will never be foolproof protection against the threats of deception; fools can be very determined, as can the inclination to be fooled. Thinking is merely our best chance. ■

SWIFT JUSTICE

CONTINUED FROM PAGE 9

among the other popular soothsayers because of Partridge's rabble-rousing against the Church.

Astrology, like other beliefs out of the rational mainstream, has critics who condemn it for religious reasons. Ideas are scorned, not because they don't work when held up to the scientific method, but because they represent a false god. This was not Swift's approach, in spite of his leanings toward the Church. Swift was a social reformer whose wit cut relentlessly at extremists on either side, and Partridge represented the lunatic fringe. Swift had a practical skepticism and irony that appreciated that the best way to deflate this humbug was to become an even greater one. ■

James Randi Educational Foundation

201 SE 12TH STREET (E. DAVIE BLVD.)
FORT LAUDERDALE, FL 33316-1815

PHONE: +1(954) 467-1112

FAX: +1(954) 467-1660

E-MAIL: RANDI@RANDI.ORG



INVITATION TO JOIN

You can support JREF by becoming an annual or a lifetime member.

Each membership category includes all the benefits below it.

- | | | |
|---|-----------|---|
| <input type="checkbox"/> Patron | \$10,000+ | • Speaking engagement by James Randi |
| <input type="checkbox"/> Benefactor | \$5,000+ | • Lifetime membership |
| <input type="checkbox"/> Sponsor | \$2,500+ | • Recognition on JREF Web page |
| <input type="checkbox"/> Supporter | \$1,000+ | • Autographed photo of James Randi |
| <input type="checkbox"/> Friend | \$250+ | • Book: <i>The Mask of Nostradamus</i> |
| <input type="checkbox"/> Individual | \$100 | • Signed letter from James Randi |
| <input type="checkbox"/> Student* | \$25 | • Subscription to <i>Swift</i> newsletter |
| <input type="checkbox"/> INTRODUCTORY OFFER | | • T-shirt, mug, or pen |
| FOR A LIMITED TIME, JOIN JREF AS AN INDIVIDUAL MEMBER FOR \$50 FOR ONE YEAR. | | • 10% off on books and other items |
| | | • Personal membership card |
| | | • Satisfaction of involvement |

All members receive a complimentary gift. The choice is one of the following:

- | | | |
|---|--|--|
| <input type="checkbox"/> JREF ceramic coffee mug with spiffy inscription. For indoor or outdoor use. Re-usable, washable. | <input type="checkbox"/> JREF pen. Writes in any language. Sexy maroon color, trimmed in homeopathic gold. Takes standard refills. | <input type="checkbox"/> JREF T-shirt with a fierce portrait of James Randi. Available in four sizes:
S M L XL |
|---|--|--|

NAME _____

ADDRESS _____

PHONE _____

E-MAIL _____

*SCHOOL ATTENDING _____

All payments to be made in U.S. dollars by check, money order, Visa or MasterCard. For credit card payment, please provide information below:

PRINT CARDHOLDER'S NAME _____

ACCOUNT # _____

EXP. DATE _____

SIGNATURE _____

The JREF is a 501(c)3 not-for-profit corporation. All memberships are tax-deductible in the U.S.

JAMES RANDI EDUCATIONAL FOUNDATION

EDUCATION

The James Randi Educational Foundation (JREF) feels that young people must be exposed to the elements of critical thinking, as well as to reliable information about paranormal claims. It offers scholarships to students who investigate such claims in a careful, scientific manner. Adults as well as young people can attend JREF educational classes and seminars. Its library of books, videos, news clippings, and other materials is open to the media, students, researchers, and the general public.

RESEARCH

The JREF is committed to providing reliable information about paranormal claims, and it both supports and conducts original research into such claims. It publishes the research results in *Swift*, the official newsletter of the Foundation.

THE PRIZE

Years ago, outspoken entertainer James Randi "put his money where his mouth is" and offered a \$10,000 prize of his own money to anyone who would demonstrate a paranormal feat under controlled observing conditions. Thanks to a number of pledgers, collectively known as the 2000 Club, the amount is now over \$1,000,000. The prize continues to grow almost daily.

AN INVITATION

WE INVITE YOU TO SUPPORT THESE
ACTIVITIES BY BECOMING A MEMBER
OF JREF.

SEE PAGE 15 FOR
MEMBERSHIP INFORMATION.

PURPOSE

The James Randi Educational Foundation (JREF) is a not-for-profit organization based on the ongoing work of its founder and leader, the world-renowned conjurer and investigator James Randi. Its primary goals are to:

CREATE A NEW GENERATION OF CRITICAL THINKERS.

INSTRUCT IN THE CONSEQUENCES OF UNCRITICALLY
ACCEPTING PARANORMAL, PSEUDOSCIENTIFIC AND
SUPERNATURAL CLAIMS.

SUPPORT AND CONDUCT RESEARCH INTO SUCH CLAIMS.

PROVIDE RELIABLE INFORMATION ON SUCH CLAIMS.

ASSIST THOSE WHO ARE BEING ATTACKED DUE TO THEIR
INVESTIGATIONS AND CRITICISMS OF SUCH CLAIMS.

FOR FURTHER INFORMATION

Please visit our Web page at <http://www.randi.org>

SWIFT

Swift is published by the James Randi Educational Foundation, 201 S.E. 12th Street (E. Davie Blvd.), Fort Lauderdale, Florida 33316-1815, +1-954-467-1112, fax +1-954-467-1660, randi@randi.org. POSTMASTER: Send change of address forms to JREF, 201 S.E. 12th Street (E. Davie Blvd.), Fort Lauderdale, FL 33316-1815.

Contents copyright © 1997 James Randi Educational Foundation, all rights reserved.

President,
Publisher, and
Editor-in-Chief
James Randi



Editorial and Graphic Design Services
Carol Krol and
Chip Denman