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Predictions for 1993

These predictions were made by the Phoenix Skeptics at their meeting on November 7, 1992. The Phoenix Skeptics have made annual predictions since 1989 and each year have "hit" on over 50% of their predictions. The 1992 hit rate, as of December 5, 1992, hovered at 59.4% with a couple more hits expected before the end of the year.

- 1) The Pope will continue to meddle in U.S. politics.
- 2) Sinéad O'Connor will not be invited to perform at the White House or Buckingham Palace.
- 3) Killer bees will arrive in Arizona.
- 4) IBM PCs and 486-based machines get much cheaper.
- 5) Trade wars with Europe and Asia erupt over agricultural and computer items.
- 6) Liz Taylor will be hospitalized and undergo surgery.
- 7) A cure for Hepatitis A and B will be announced.
- 8) An assassin will attempt to end Bill Clinton's tenure in the White House.
- 9) Inflation will increase by 50% and more money will be printed.
- 10) Hollywood and the cultural elite will have influence in the Clinton Administration.
- 11) Drought in California.
- 12) Southern California will have a 6.3 or higher earthquake.
- 13) The number of Elvis sightings will increase sharply.
- 14) Despite appearing on the rubber chicken circuit, Dan Quayle will fade from importance.
- 15) The Toronto Blue Jays will not repeat as World Series Champions.
- 16) The ozone hole over Canada will get bigger.
- 17) The Phoenix Suns will become NBA Champions.
- 18) George Bush will become President of Yale.
- 19) Bruce Babbitt will become Secretary of the Interior.
- 20) In a protest over Sinéad O'Connor, Jesus will NOT return to Earth this year.
- 21) Gene therapy will produce a major cancer breakthrough.
- 22) Madonna becomes a mother.
- 23) Uri Geller will again sue James Randi.
- 24) RU-486 will be okayed for limited use in the United States.
- 25) Killer bee honey will be touted as a miracle cure by quacks.
- 26) As country music's popularity fades, jazz and the saxophone become popular.
- 27) Ross Perot fades from public consciousness in the second half of the year.
- 28) Operation Rescue initiates the use of terrorist tactics to further its aims.
- 29) Minority stars make major inroads into the Entertainment industry.
- 30) Fetal tissue research is reborn.
- 31) Arizona will see a major bank failure in 1993.
- 32) NRA loses a major handgun control battle.
- 33) A serial killer stalking Phoenix will be apprehended.
- 34) The number of Virgin Mary sightings will increase.

- 35) A world renowned televangelist will go to his heavenly reward.
- 36) Political scandal rocks Arizona.
- 37) Phoenix will lead Arizona's economic recovery.
- 38) The Bible Belt will be walloped by earthquakes.
- 39) By the end of 1993 no one will yet have a clue as to what ever the 1996 Olympic mascot is supposed to be.
- 40) The conflict in the Balkans will spread.
- 41) Boris Yeltsin will be removed from power.
- 42) The Natural Law Party builds in support.
- 43) There will be no progress on the Pima Freeway.
- 44) Washington, D.C. will be closer to statehood in 1993.
- 45) Ted Kennedy will be a father in 1993.
- 46) Saddam Hussein will prove himself ignorant of the history of Democratic Presidents.
- 47) A feline will have a best seller in 1993.
- 48) Grant Woods will be a U.S. Senator from Arizona in 1993.
- 49) Evan Mecham's paper does not roll off the presses in 1993.
- 50) An Interstate Highway bridge will collapse in 1993.
- 51) Reba McEntire gets into a tour bus accident.
- 52) A disastrous fire ravages California.
- 53) Race riots rock a major midwest metro area.
- 54) Enough dark matter is located to close the universe.

And our perennial final prediction: our hit rate will be better than that of any professional psychic's published prediction hit rate.

[Phoenix Skeptics executive director Mike Stackpole discussed these predictions on KFYZ 910 AM from 3-4 p.m. on New Year's Eve with Herb Kalish. —Editor]

Jeane Dixon Predicts Bush Victory

Renowned psychic Jeane Dixon predicted in the tabloid *The Star* on October 20, 1992, that George Bush would "eke out a win" in the 1992 presidential election.

Report on the 1992 CSICOP Conference: Part Two

By Jim Lippard

[This is the second part of a two-part summary of the CSICOP conference which was held in Dallas on the weekend of October 16-18. Part one, which was published in the November/December issue of *AS*, summarized the panels on multicultural approaches to science, gender issues in science and pseudoscience, and Oxford zoologist Richard Dawkins' keynote address on "Viruses of the Mind." —Editor]

Scientific Fraud

The first session on Saturday was a panel on fraud in science moderated by Ray Hyman. I missed most of the first speaker's presentation while having breakfast with a few members of the CSICOP Executive Council and the delegation of speakers from China, but did get enough of

Elie Shneour's talk to hear him recommend the following policies: (1) Anybody who hasn't done any work should not be listed as an author on a scientific paper. (2) Papers should be subjected to peer review. (3) Bad papers shouldn't be published at all, which means many journals should be euthanized.

The second panelist was Paul Friedman, professor of radiology at the University of California, San Diego School of Medicine. After the John Darsee affair at Harvard, Friedman helped write up a policy for dealing with allegations of research "hanky panky." In the past, the first reaction to such things would be to tell the perpetrator that "there's a mistake in your paper." If guilty, his reaction might be "I can't find my data," followed by "I resign," and the process would end there.

Friedman stated that the definition of "scientific fraud" depends on context. There are always problems with sloppy work, corner cutting, etc. that create noise in the scientific process, but deliberate fraud is not very common. It has increased, but seems to be proportional to the number of people practicing science. Senator John Dingell brought scientific fraud into the public arena, whereas in the past it had typically been kept quiet—perpetrators being bought out, fired, etc. Was that appropriate? Friedman views that as an open question.

Generally, when something goes wrong, other researchers know about it. Younger researchers, however, worry about their careers being wrecked, worry that there may not really be anything wrong but they simply don't understand what's being done. When Robert Millikan performed his oil drop experiments to measure the charge of the electron, he did not report all of his data; he selected what he thought was representative. An experimenter may completely screw up an experiment and start over; nobody publishes all of their data. There is also systematic misrepresentation in journals of the order of experimental proceedings, and so forth (i.e., the logical structure of a paper is not the temporal order). In applying for research grants, researchers tend to report the most promising results which they've already obtained, leaving out the rest.

Peer review at the level of a journal submission or grant application, according to Friedman, is not capable of screening out fraud. A certain level of honesty on the part of researchers is assumed. On the other hand, peer review by other people in the same lab may be able to catch fraud.

Other touted self-correcting methods of science are also not so great, said Friedman. Replication, for example, may fail because the original work made a mistake. It may succeed even when the original work is fraudulent, if it was plagiarized from elsewhere. Furthermore, a large number of papers are never cited by anyone, and no replications are ever done. It does tend to be effective in work that is particularly interesting, such as superconductivity and cold fusion (two cases which have had very different results).

Friedman expressed some worry over the Office of Scientific Integrity, a self-perpetuating agency which gets millions of dollars a year. Will this agency harm

the practice of science with fraud accusations? Institutions doing their own investigations, on the other hand, tend to deal with things very quietly to avoid wrongly damaging reputations.

The third speaker was Walter Stewart of the National Institutes of Health, who has been involved in numerous investigations of scientific fraud. He began by taking issue with a statement made by Richard Dawkins during the question and answer session following Friedman's presentation, in which Dawkins stated that although there have been some minor problems, the scientific community is a shining example to other professions, such as journalism, of self-policing that they would do well to emulate. By the time Stewart finished his presentation, Dawkins stood up to withdraw his previous remarks, but added that "science does, at least, have standards to violate."

Stewart discussed in great detail the case of MIT researcher Thereza Imanishi-Kari (also known as TIK), who fabricated data in a paper published with Nobel prizewinner David Baltimore as a coauthor.⁸ In essence, what occurred was that Margot O'Toole, TIK's assistant, discovered the fraud and brought it to the attention of other people, including MIT Dean Gene Brown and David Baltimore, in whose lab the experiments allegedly took place. For her efforts, she was told by Baltimore that anywhere she went with her story, he would go too, and that he would be believed. She had given up when Stewart got involved, and they wrote a paper documenting the fraud which was rejected by *Cell* and *Science*, and sat upon for four years by *Nature* before being published. In 1988 Senate hearings on the matter took place, the Secret Service did analysis of the lab notebooks, and David Baltimore continued to defend TIK and call for support from the scientific community—which he got. For three or four years, O'Toole was isolated from and ridiculed by the scientific community and was unable to find a job.

The second case Stewart described involved Heidi Weissman, who worked in the lab of radiologist Leonard Freeman at the Albert Einstein College of Medicine. Freeman plagiarized some of Weissman's work by whiting out her name on a photocopy and typing in his own. Weissman lost her job while Freeman was promoted to vice chancellor. (Stewart says that the "freeman" is the unit of plagiarism.) Weissman sued for the rights to her work, and won. She has been effectively blacklisted from working in her field.

Paul Friedman remarked that Weissman had already been complaining about not being promoted and had a reputation for being difficult to work with, and that she took legal action before the university had finished investigating her complaints. Stewart responded that the legal case which she won has been out of the courts for three years now, and that a lawsuit is not a reason for scientists to avoid criticizing something (e.g., blatant plagiarism) that is clearly wrong. He said that he knew of no scientists who had publicly stated that Freeman was wrong; both Shneour and Friedman proceeded to do so. (Shneour maintained that other scientists had done

so, but could not remember the names of any. He stated that he had a list of names at home.)

Crashed Saucer Claims

Following lunch and brief talks by Sergei Kapitza, editor of the Russian edition of *Scientific American*, and Evry Schatzman, founder of the French Union Rationaliste and former president of the French Physics Society, two concurrent sessions were offered. One was on crashed saucer claims; the other on the paranormal in China, specifically the form of Chinese traditional medicine known as qi gong. I attended the session on crashed saucers.

CSICOP Executive Council member and leading UFO skeptic Philip Klass moderated the panel, which looked at the three most famous cases of alleged crashed saucers: the Roswell, New Mexico case, the Bentwaters/Woodbridge, England case, and the Kecksburg, Pennsylvania case.

Tucson resident and retired U.S. Air Force Major James McGaha spoke on the Bentwaters/Woodbridge incident, which took place in December 1980. This case involved sightings over two nights, December 26 and 27. None of the principals described any crash, but Jenny Randles, Dot Street, and Brenda Butler wrote the book *Sky Crash* about the incident, based on the claims of Larry Warren, who was a security policeman stationed at Woodbridge at the time. None of the principals involved in the sightings reported Warren's presence.

On the first night, airman John Burroughs heard a radio report that something had been tracked on radar at Heathrow, then saw a light in the woods which he thought might be a crashed aircraft. After obtaining permission to leave the base and investigate, he saw an object flying through the forest, which he described as being triangular and about ten feet wide (about the distance between the trees). The next day, some circular holes were found in the ground in the area.

On the second night, security police saw a light, called the deputy base commander, Lieutenant Halt, and left the base and entered the forest with equipment, planning to debunk the UFO claim. They saw a winking light, three lights in the sky, and a light beam coming down from the sky. Halt arrived and saw the light, which winked and broke up near a farmhouse, which was then lit with a red light, seemingly from within. (Vic Cuttings, the farmer who was present at the time, noticed nothing unusual.) Burroughs said he saw a light fly through the cab of the truck they had driven to the site.

McGaha explained how the TV show *Unsolved Mysteries* made these events seem more mysterious by reporting that on the second night, much of the equipment was working intermittently. McGaha pointed out that their radios were intermittent because they were line of sight radios, and their "light-alls," devices with very powerful lights on them, are notoriously unreliable. The holes in the ground were examined by the Suffolk police, who said they looked like rabbit diggings.

McGaha offered the following explanation for these sightings: On December 26, Cosmos 740's rocket booster reentered the earth's atmosphere at around 21:10, and was picked up on radar. Shortly before 3 a.m., when the first light was seen, a fireball crossed the sky. At around 4 a.m., the Suffolk police were driving in the area (in response to the reports) with their lights flashing. McGaha attributes the lights seen by Burroughs to the fireball and the police lights. On December 27, the three lights in the sky were Vega, Deneb, and Sirius, while another light was a lighthouse 5 miles away (in the right direction) which has a 5 second period. Lt. Halt is on tape saying "there it is," followed by a five second pause, followed by "there it is again."⁹ Although McGaha gave his explanation to interviewers for *Unsolved Mysteries* and one of the producers told him that he wasn't sure the segment would be aired because McGaha had completely destroyed the case, the show aired anyway—with McGaha's explanations left on the cutting room floor.

Robert Young, the education director of the Harrisburg Astronomical Society, reported on the 1965 Kecksburg, Pennsylvania alleged UFO crash. On December 9 of that year, a brilliant bolide was seen in the sky by tens of thousands of people over nine states and Ontario, Canada. The path was determined by examining photographs and triangulating, and it was determined to have disintegrated 14 kilometers above southwest Ontario, and this result was published in 1967 in a Canadian astronomical journal.

Young has examined 91 eyewitness reports, all of which can be explained by the Ontario fireball. Yet his experience with Fox's *Sightings* show was similar to McGaha's experience with *Unsolved Mysteries*. (Young was on the air for about ten seconds.)

Both *Sightings* and the September 19, 1990 *Unsolved Mysteries* based their shows on other information. They looked at Ivan Sanderson's calculations of the motion of the fireball, which (because of errors) showed the fireball changing direction. They looked at a newspaper headline in the early (county) edition of the December 10 *Greensburg Tribune-Review* which stated "Unidentified Flying Object Touches Off Probe Near Kecksburg," but omitted the later (city) edition's story about searchers failing to find anything. They reported on five witnesses who claim to have seen a crashed object which was retrieved by the military. Young gave details on each of these five witnesses and their reports: (1) First reported his story in 1979 on KDKA radio; claimed to have been fire chief of Kecksburg at the time. In fact he was the fire chief in 1964, but not in 1965. (2, 3) These witnesses were a father and son; the father is deceased. The son claims the military used their home as a base of operations, but does not claim to have seen any recovered object. Other witnesses dispute the claim about the use of their home. (4) A UFO group's display at a local mall in 1987 resulted in this witness coming forward. He says he saw the recovered object, but can't remember anyone else who was present. (5) This witness showed up during

the filming of *Unsolved Mysteries* and claimed to have seen a hieroglyphic-covered object that was recovered.

Young pointed out that the description given by witnesses 4 and 5 of where the object landed match the location where the local newspaper said the search took place—but the newspaper account was inaccurate. None of these five witnesses' accounts stand up under scrutiny. On the other hand, 46 people signed a statement which was sent to *Unsolved Mysteries* prior to their show's airing, stating that there was no object which crashed and no recovery of an object by the military. The show failed to mention this statement.¹⁰

The final speaker on the panel was Donald R. Schmitt, a medical illustrator, co-director of the late J. Allen Hynek's Center for UFO Studies (CUFOS), and co-author (with Kevin Randle) of *UFO Crash at Roswell*, which Phil Klass in his introduction called the best of the books on Roswell. Schmitt began by giving his credentials as a skeptic, pointing out that CUFOS debunked the Gulf Breeze sightings, MJ-12, and Gerald Anderson, who has made claims about the Roswell crash. He went on to argue that something peculiar occurred in Roswell, New Mexico on July 8, 1947.

Schmitt's central evidence was the wire transmissions between Roswell, Fort Worth, and Washington D.C. on July 8. An "official press release" was issued on that date, resulting in a news story titled "Flying Disc in Army Possession" at 4:26 p.m., Washington time. By 5:30, it was reported that a reporter in Fort Worth was allowed to examine debris, which was sent on to Wright field. At 6:30, Major E.M. Kurtan said there was nothing to it, it was a high altitude sounding device, and there was no need to send it on to Wright.

The wire transmission evidence prompted Schmitt to ask: Why did it take two hours to identify the object as a radar device which had been in use for twenty years? (Before the invention of radar, according to Schmitt, the same kind of balloon device was used for visual tracking.) Schmitt argued that what was found at Roswell was no such thing. He eliminated various possible explanations: a V2 launch scheduled for July 3 was canceled due to a pad fire, there are no Japanese balloon bombs unaccounted for, etc.

Schmitt said he has talked to 150 people who were involved in some way. Of 30 military personnel he has spoken with, he said that none of their military records can now be found. Two witnesses say there was a nurse at the base hospital who observed alien bodies, who was allegedly transferred to another base and then died in a plane crash. Schmitt can't find any record of the plane crash, nor any records supporting the existence of this nurse. Rather than conclude that the witnesses were in error, however, he concludes that there is a coverup.

Schmitt claimed that some of the witnesses he has spoken to say that they were threatened by military personnel that their children would be killed if they ever talked about it; children were told they'd never see their parents again if they did. W.W. Brazell, the rancher on whose property debris was found, allegedly told his

family that the military had threatened him. Schmitt said he has six deathbed statements, including one of a general, stating that "it was no goddamn weather balloon."

After some skeptical questioning by audience members, Phil Klass then addressed the subject. He began, "It may shock some of you to hear what I am about to say. I agree there is a major saucer crash coverup. We disagree about who is covering it up." He then proceeded to present information which he said had been neglected by proponents of a UFO crash at Roswell. On September 23, 1947, Lieutenant General Nathan Twining, Wright-Patterson base commander, wrote to the chief of staff of the Army Air Force with an assessment of UFOs. In this letter, which is quoted extensively by UFO proponents, Twining stated that "the phenomenon reported is something real and not visionary or fictitious." What they never quote, however, is that he also wrote in the same letter that there is "a lack of physical evidence in the shape of crash-recovered exhibits which would undeniably prove the existence of these objects." This was several months after Roswell, so Klass offered three possible implications of this letter: (1) Twining was lying to Air Force headquarters. (2) Nobody told Twining about the crashed saucer. (3) There was no crashed saucer. Klass enumerated case after case of documents, many formerly classified Secret or Top Secret, which made similar comments, all after Roswell and authored by people who should have known if flying saucers had crashed there.¹¹

CSICOP Video

After the two concurrent sessions on crashed saucers and qi gong, the new CSICOP video, "Beyond Belief," was premiered. The video, hosted by magician Steve Shaw of Project Alpha fame, addressed the subjects of astrology, firewalking, and the Gulf Breeze UFO. The video will be made available to local groups for their meetings or for public access cable.

Awards Banquet¹²

Three skeptics were honored by CSICOP Saturday evening. The "In Praise of Reason" award was given to Oxford zoologist Richard Dawkins, "in recognition of his distinguished contribution to the use of critical inquiry, scientific evidence and reason, in evaluating claims of knowledge." During his acceptance speech, Dawkins urged scientists to exploit the awe factor as a means of stimulating interest in science over religion. He mentioned how appalled he was to learn that 54% of U.S. charitable contributions go to religious institutions.

The "Distinguished Skeptic" award went to Toronto magician and columnist Henry Gordon, who shared with the audience his numerous frustrations and successes in establishing a regular skeptics column for the Toronto newspapers. According to Gordon, success or failure in this venture depends very much on whether the editor is a critical thinker or is sympathetic to the paranormal.

Finally, the "Responsibility in Journalism" award was given to Andrew Skolnick, associate editor of the *Journal of the American Medical Association (JAMA)* for his article, "Maharishi Ayur-Veda: Guru's Marketing Scheme Promises the World Eternal 'Perfect Health'" (*JAMA* 266(October 2, 1991):1741-1750). Skolnick was unable to say anything about his article as a result of a multi-million dollar lawsuit against himself and *JAMA* filed by Ayur-Veda organizations.¹³ Skolnick urged skeptics to band together and work towards establishing legal restrictions on SLAPP (strategic lawsuit against public participation) suits; otherwise such lawsuits will discourage open skeptical discussion and criticism. For this and the award, Skolnick received a standing ovation.

The evening was capped with a demonstration of spoon-bending and mentalist magic by Project Alpha alumnus Steve Shaw. Shaw was one of two teenage conjurors working for James Randi that were hired by investigators at the McDonnell Lab for Psychical Research in St. Louis in 1979. Subsequently, the young conjurors, acting as research subjects, fooled McDonnell scientists into believing that they had genuine psychokinetic powers. The resulting exposé by Randi (who dubbed his experiment with McDonnell scientists "Project Alpha") convinced parapsychologists that a conjuror should be present at tests of psychic abilities.¹⁴

Randi himself received an ovation at the CSICOP luncheon for his legal battles with alleged psychic Uri Geller, who has filed a plethora of lawsuits against Randi and CSICOP, so far without success in court.

Dinosaur Valley State Park/Dealey Plaza

On Sunday, after another screening of the CSICOP video and a "conversation session" with some of the CSICOP Executive Council members, the North Texas Skeptics arranged an optional trip to Dinosaur Valley State Park. This trip, guided by Ronnie Hastings, was a visit to the dinosaur tracks at the Paluxy River which have been claimed by creationists as evidence of human beings living contemporary with dinosaurs.¹⁵

A number of conference attendees, however, chose instead to visit Dealey Plaza, the site of John F. Kennedy's assassination in 1963. At Dealey Plaza, one can visit The Sixth Floor, a museum in the former Texas School Book Depository, walk on the grassy knoll and observe the view from behind the wooden fence (where vandals have written "Kenney [sic] was shot from here" in several different places), or talk with any one of several conspiracy theorists hawking tabloids which describe their theories. Our group, visiting the grassy knoll with a conspiracy theorist as our guide, concocted a story involving the use of a drainage pipe behind the fence as a "conspirators' escape tunnel," only to be told by the guide that such a theory had already been proposed. I'm not sure who proposed it, but it may have been another conspiracy theorist who spoke to us. Joe Nickell called his theory the "twelve bullet theory," because this theorist apparently maintained that every postulated marksman was an actual shooter.

Notes

8. See, for one summary, Philip J. Hiltz, "The Science Mob," *The New Republic* vol. 206 (May 18, 1992):24-31. Stewart himself wrote a summary for *Nature* (July 28, 1988). The Stewart article makes the case that fraud occurred; the Hiltz article covers how the scientific community and Baltimore in particular responded. The Baltimore case is covered in great detail in Robert Bell, *Impure Science: Fraud, Compromise and Political Influence in Scientific Research*, 1992, John Wiley and Sons, pp. 113-143 (see review in this issue of AS).
9. See, for more details on this case, Ian Ridpath, "The Woodbridge UFO Incident," *Skeptical Inquirer* vol. 11, no. 1, Fall 1986, pp. 77-81. Also see Robert Sheaffer's "Psychic Vibrations" column, *Skeptical Inquirer* vol. 10, no. 3, pp. 209-210; Stuart Campbell's letter, "The Suffolk 'UFO' Lights," *Skeptical Inquirer*, vol. 11, no. 4, Summer 1987, pp. 425-426, and Ridpath's reply.
10. See Robert R. Young, "'Old-Solved Mysteries': The Kecksburg Incident," *Skeptical Inquirer* vol. 15, no. 3, Spring 1991, pp. 281-285.
11. See Philip J. Klass, "Crash of the Crashed-Saucer Claim," *Skeptical Inquirer* vol. 10, no. 3, Spring 1986, pp. 234-241.
12. This section was written by Richard Crowe of the Astronomy Department of the University of Hawaii at Hilo and revised by Jim Lippard. (Thanks, Richard!)
13. For details, see Skolnick's article, letters to *JAMA* in the same issue as his article, and the March 11, 1992 *JAMA*. Skolnick's article is summarized in his "The Maharishi Caper: JAMA Hoodwinked (But Just for a While)," *Skeptical Inquirer* vol. 16, no. 3, Spring 1992, pp. 254-259. Skolnick's article was also given a "laurel" by the *Columbia Journalism Review's* "Darts and Laurels" column, as reported by Kendrick Frazier in the Summer 1992 *SI*.
14. "Project Alpha" is described by Randi in "The Project Alpha Experiment: Part 1. The First Two Years," *Skeptical Inquirer* vol. 7, no. 4, Summer 1983, pp. 24-33, and in "The Project Alpha Experiment Part 2. Beyond the Laboratory," *Skeptical Inquirer* vol. 8, no. 1, Fall 1983, pp. 36-45. Various aspects of Project Alpha are criticized by Marcello Truzzi in "Reflections on 'Project Alpha': Scientific Experiment or Conjuror's Illusion?" in the *Zetetic Scholar* nos. 12/13, 1987, pp. 73-98.
15. The Paluxy River footprints have been thoroughly debunked and even most creationists now admit that they do not provide evidence of humans and dinosaurs living together. See, for example, the special issue of *Creation/Evolution*: vol. 5, no. 1, 1985, titled "The Paluxy River Footprint Mystery—Solved." Also see Richard A. Crowe, "A Visit to Dinosaur Valley State Park," in the November/December 1992 *AS*.

Book Review

Impure Science: Fraud, Compromise and Political Influence in Scientific Research by Robert Bell

1992, John Wiley & Sons, 301 pp.

Reviewed by Jim Lippard

Robert Bell's book is a welcome addition to the literature on fraud in science. Where previous books on the subject (like William Broad and Nicholas Wade's *Betrayers of the Truth* and Alexander Kohn's *False Prophets*) survey a large number of cases of scientific fraud, Bell focuses on a few in great detail, with very brief summaries of other cases. At times, the amount of detail is a bit tedious, but at other times it is necessary for a complete understanding of what is going on.

Bell states in his introduction that his "primary purpose is to show that the American scientific community is as 'pure' and unbiased as the political machinery that dispenses its patronage and its funding." To demonstrate this, he adopts a strategy of "following the money." The book begins with an examination of the peer review process of the National Science Foundation, and how it was used to prevent geologist and archaeologist Jon Kalb from receiving funding for research in Ethiopia—either for himself or for several other teams who were working with him. The proposals were denied funding not for any scientific reasons, but because of a completely unsubstantiated rumor—brought up by competitors of Kalb's in Berkeley, who were the reviewers of the proposals—that Kalb had received funding from the CIA. The NSF denied that this was the reason for the proposals being turned down, but deliberately set up its filing system so as to circumvent Freedom of Information Act requests. Kalb turned to attorneys, and the NSF eventually admitted that there had been abuses and paid Kalb \$20,000 to cover his legal expenses.

The next several chapters of the book discuss "super science"—huge projects with large price tags such as the Superconducting Supercollider. The project discussed in the greatest detail is the 1986 NSF award of \$25 million to the State University of New York at Buffalo to establish an Earthquake Engineering Research Center. The money was awarded to SUNY-Buffalo rather than the University of California at Berkeley despite that fact that the latter school had the better proposal, more experts, and more earthquakes to study (4,421 earthquakes registering 4 or more on the Richter scale between 1900 and 1986 in California and 13,974 in neighboring states, compared to 22 quakes of the same magnitude in the combined states of New York, New Jersey, Pennsylvania, Massachusetts, Virginia, Connecticut, Maryland, Delaware, and Washington, D.C.). How did this happen? The seven panelists who made the decision were all from the east, and only one person from the western U.S. was even approached about being on the panel.

The book then addresses the topic of doctoring data, focusing on the cases involving Stephen Breuning, John Darsee, and David Baltimore (with the most detail on the

last of these; see the description on the "Scientific Fraud" panel from the 1992 CSICOP conference summary in this issue of *AS*). Breuning filed fake research reports on federally funded projects involving drug therapy for mentally retarded children. This was discovered by his mentor, Dr. Robert Sprague, at the University of Illinois. The result of Sprague's complaints to the University of Pittsburgh (where Breuning was) resulted in no action by that university and an investigation by the National Institute of Mental Health—of Sprague! NIMH canceled Sprague's grant (after 18 years of funding). *Science* magazine interviewed Sprague for a story (favorable to him), but sat on it for 10 months and only published when Dan Greenberg of *Science & Government Report* threatened to publish the story himself. Finally, investigation by NIMH showed that "virtually all Breuning's work was fabricated and that Sprague's work and accusations were beyond reproach" (p. 109).

Bell's book next discusses drug research in which information about harmful side-effects was suppressed (Zomax), animal research which showed serious harmful effects went on concurrently with high-pressure marketing of the drugs for use by humans (Dolobid, Oraflex, Feldene), in which testing was inadequate (the Bjork-Shiley convexo-concave heart valve), and in which there were serious conflicts of interest on the part of researchers (the Charles Bluestone case, research involving Retin-A, and research on t-PA).

The book concludes with chapters on Pentagon-funded science and three suggestions for dealing with problems of the kind discussed in the book. The three suggestions are (1) separation of funding and control of projects, (2) legislation to "encourage universities receiving federal research money to prevent or at least publicize conflicts of interest" (p. 263), and (3) the Federal False Claims Act to aid whistleblowers, who can receive 10%-25% of treble damages plus \$5,000 to \$10,000 in civil court for each of the defendant's offenses.

Impure Science is a fascinating and horrifying account of how the political institutions of the U.S. scientific community have led to scientific fraud, condemnation of whistleblowers, and the unjust distribution of research funding. It is at its best in its descriptions of the details of various shortcomings of science, but its suggestions for preventing future occurrences are rather cursory. (Some further suggestions are made in Broad & Wade's book, but are not mentioned by Bell.) This book is recommended, especially to those who think that science is a self-correcting process. In a number of the cases described by Bell, the corrections came not as a result of the institutions of science, but in spite of them.

Book Review

Taking Time for Me: How Caregivers Can Effectively Deal with Stress by Katherine L. Karr

1993, Prometheus, 200 pp., \$22.95 (hb)
\$15.95 (pb)

Reviewed by Michael A. Stackpole

Taking Time for Me is a book in Prometheus Books' Golden Age Books line. It focuses on the problems that arise when we are put into a position of caring for spouses or parents who are terminally ill. The pressures of that sort of responsibility are great, and they are ongoing because one never knows, from moment to moment, what demands will be made. In addition to constantly being on call to deal with any of a million emergencies, the loss of privacy, the withering of a normal social life and the sheer isolation of the job cuts caregivers off from the normal support network which would help bleed off the stress in other circumstances. As Katherine Karr notes, "Generally speaking [caregivers] take better care of our family members than we do of ourselves."

The body of the book deals with, on a chapter by chapter basis, various strategies for dealing with stress and issues that caregivers face. Even number chapters use specific caregivers as examples and fully describe their techniques for dealing with the problems of nursing a terminal relative. In each of the descriptions a caregiver can pick up enough clues to match their case to a specific example, enabling them to select the strategy that will work for them.

The odd numbered chapters address issues and fallacies that face a caregiver, including stress control, fighting self-pity and the problem of suffering. In these chapters each item is explored, broken down and tackled with reasoned explanations and simple exercises. Karr effectively reduces caregiver problems to manageable sizes, then encourages the caregivers to take the steps necessary to make life easier on themselves and, consequently, easier on those for whom they care.

In this very insightful and thought-provoking book, Karr reminds all of us of our needs as human beings. She also points out that dealing with the death of a loved one is not a problem from which we will never recover or with which we cannot deal. Given that it is estimated that 10,000,000 elderly people will require aid in food preparation, dressing and bathing—basic day-to-day tasks—by the year 2000, this book is a welcome and vital guide to that will equip those who will have to manage those tasks with the skills we need to handle the situation.

Upcoming Meetings

The Phoenix Skeptics will meet at the Jerry's Restaurant on Rural/Scottsdale Road between McKellips and the river bottom, with lunch at 12:30 on the first Saturday of each month except where it conflicts with a holiday.

Reader Survey

In the interest of improving the *Arizona Skeptic*, it would be appreciated if all readers would answer the following questions and send their answers to the editor, Jim Lippard, P.O. Box 42172, Tucson, AZ 85733-2172.

(1) Which features in this issue of the *Arizona Skeptic* did you read? Rank them in order of interest, with the one you found most interesting first, from this list: (a) predictions for 1993, (b) conference summary, (c) *Impure Science* book review, (d) *Taking Time for Me* book review (e) articles of note.

(2) Which features have you enjoyed most from recent issues of the *Arizona Skeptic* (other than this one) which you have read? Rank them in order of interest, with the one you enjoyed most first.

(3) What type of feature would you most like to see in future issues of the *Arizona Skeptic*? (a) investigative reports, (b) event summaries, (c) interviews with skeptics and proponents of paranormal and fringe science views, (d) summaries of articles from paranormal and fringe science publications, (e) articles reprinted from other local skeptics group newsletters, (f) other (specify).

(4) Do you have any suggestions for improvement of the style or content of this newsletter? If so, please specify.

(5) (Optional) What is your age, level of education (include highest degree received), and type of employment? What other magazines do you enjoy reading?

All responses will be confidential and will be destroyed after the data is tabulated.

Articles of Note

"Biosphere Oxygen Dips, 4 on Medicine," *The Arizona Republic* (Saturday, December 26, 1992):B2. Associated Press story based on a story from the previous Thursday's *Tucson Citizen*, revealing that the Biosphere 2's oxygen level is just above 15-percent and four of the eight Biospherians are taking acetazolamide to reduce symptoms of mountain sickness. Carbon dioxide levels are at 3,000 parts per million (compared to 350 ppm in the Earth's atmosphere). Oxygen levels at the height of the highest-altitude human populations (e.g., some Andean and Himalayan villages) are 13.6 percent.

"Researchers Date Nazca Lines," *Earth* (January 1993):16-17. Reports that in a recent issue of the *Annals of the Association of American Geographers*, University of Winnipeg archaeologist Persis Clarkson and ASU geomorphologist Ronald Dorn give the results of accelerator mass spectrometry radiocarbon dating of the Nazca drawings in Peru. Manganese oxide, clay minerals, and iron oxides have built up on the rocks which make up the lines, trapping small organisms inside which can be radiocarbon dated. The 593 samples gave dates ranging from 190 B.C. to 660 A.D.

George P. Hansen, "The Elusive Agenda: Dissuading as Debunking in Ray Hyman's *The Elusive Quarry*," *Journal of the American Society for Psychical*

Research 85(April 1991):193-203. Argues that CSICOP Fellow Ray Hyman plays two roles as a critic of parapsychology: a technical critic, at which he is the best of all external critics of parapsychology, and a prosecutor trying to deny the scientific legitimacy of parapsychology. Hansen enumerates some technical errors and omissions in Hyman's book.

Matthew Scanlon and James Mauro, "The Lowdown on Handwriting Analysis: Is It For Real?" *Psychology Today* 25(6, November/December 1992):46-53, 80. A rather nonskeptical look at graphology.

Carol Tavris, "Beware the Incest-Survivor Machine," *The New York Times Book Review* (January 3, 1993):1,16-17. CSICOP Fellow Tavris criticizes Ellen Bass and Laura Davis' *The Courage to Heal*, Wendy Maltz and Beverly Holman's *Incest and Sexuality*, and E. Sue Blume's *Secret Survivors* for creating incest survivors. She recommends Robert A. Baker's *Hidden Memories: Voices and Visions from Within* and Judith Lewis Herman's *Trauma and Recovery*.

Magazine/Journal Subscription Information

Readers may wonder how to subscribe to some of the publications which appear frequently in the "Articles of Note" feature of the *Arizona Skeptic*. Here is information on several skeptical and paranormal/fringe science publications:

Skeptical Inquirer: \$25/year, 4 issues. P.O. Box 703, Buffalo, NY 14226-0703.

BASIS (Bay Area Skeptics Information Sheet): \$18/year, 12 issues. Bay Area Skeptics, 17723 Buti Park Ct., Castro Valley, CA 94546.

Skeptic: \$30/year, 4 issues. Skeptics Society, 2761 N. Marengo Ave., Altadena, CA 91001.

Journal of Scientific Exploration: \$30/first year, \$40/year thereafter, 4 issues. ERL 306, Stanford University, Stanford, CA 94305.

Journal of the American Society for Psychical Research: \$35/year, 4 issues. American Society for Psychical Research, 5 W. 73rd St., New York, NY 10023.

Journal of Parapsychology: \$30/year, 4 issues. P.O. Box 6847, College Station, Durham, NC 27708.

Fortean Times: \$30/year, 6 issues. John Brown Publishing, Ltd., 20 Paul Street, Frome, Somerset BA11 1DX, UK.

The Arizona Skeptic is the official publication of the Phoenix Skeptics and the Tucson Skeptical Society (TUSKS). The Phoenix Skeptics is a non-profit scientific and educational organization with the following goals: 1. to subject claims of the paranormal, occult, and fringe sciences to the test of science, logic, and common sense; 2. to act as clearinghouse for factual and scientific information about the paranormal; and 3. to promote critical thinking and the scientific method. The contents of **The Arizona Skeptic** are copyright © 1993 by the Phoenix Skeptics unless otherwise noted. Material in this publication with Phoenix Skeptics copyright may be reprinted provided that **The Arizona Skeptic** and the author are provided copies of the publication in which their work is reprinted. Address all correspondence to the Phoenix Skeptics, P.O. Box 62792, Phoenix, AZ 85082-2792 or electronically to REVENANT on GENIE. Submissions for publication in **The Arizona Skeptic** may be sent to Jim Lippard, P.O. Box 42172, Tucson, AZ 85733 or electronically to LIPPARD@CCIT.ARIZONA.EDU (Internet) or JIM.LIPPARD (GENIE). All manuscripts become the property of the Phoenix Skeptics, which retains the right to edit them. Subscription rate is \$12.50 per year. Editor: Jim Lippard. Production: Ted Karren.

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