

PROMETHEAN FIRE: THE VIEW FROM THE OTHER SIDE

BY DOUGLAS M. STOKES

The Prometheus press, the publication arm of the notorious CSICOP (Committee for the Scientific Investigation of the Claims of the Paranormal), has not been idle these past two years. A veritable deluge of its books criticizing the claims of religion, parapsychology, and other areas of fringe science has appeared in recent months. In this essay, I review four of these volumes that are more or less specifically directed at the claims of parapsychology. These are: *The Transcendental Temptation: A Critique of Religion and the Paranormal* by Paul Kurtz, *Science Confronts the Paranormal* edited by Kendrick Frazier, *Psychic Paradoxes* by John Booth, and *Investigating the Unexplained* by Melvin Harris.

KURTZ'S *THE TRANSCENDENTAL TEMPTATION*¹

Paul Kurtz is the founding chairman of CSICOP, a body devoted to the investigation (some would say denunciation) of the claims of parapsychology and other fringe disciplines. *The Transcendental Temptation* is perhaps the best single presentation in print of Kurtz's own guiding philosophy (a version of what has become known as secular humanism). Kurtz's (and by extension CSICOP's) resistance to the claims of parapsychology can be clearly seen in this volume to derive from his concern that the rationalistic edifice of modern science has a precarious status at best and is ever in peril of being engulfed by a new wave of the religious and occult irrationalism that hindered the emergence of modern science in the first place (although some writers, such as Jaki [1978], have proposed that faith in a rational deity helped fuel the search for order in the universe and laws of nature.) Thus, Kurtz is perhaps not so threatened by a rational experimental approach to parapsychology as he is by the true irrationalism of fringe disciplines and various organized religious movements. This would explain his (and CSICOP's) past ten-

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dency to focus on fringe claims in parapsychology rather than on the best experimental work. Certainly, the parapsychological community should share CSICOP's concern about the former. Nevertheless, Kurtz's attacks on the more scientifically oriented work in parapsychology, when they occur, seem also to be based on his feeling that the promotion of even these parapsychological claims has an underlying irrational basis.

In his preface to the book, Kurtz contrasts the hard-headed, logical, scientific, skeptical approach to knowledge with religious, wishful-thinking transcendentalism. He sees the distinction between these two approaches as embodying the dichotomy between the "doer" and the "follower" and between the "knower" and the "prophet." Kurtz seems here to view scientific knowledge as absolutely true or certain, in opposition to the view of most contemporary philosophers, who see scientific knowledge as being comprised of systems of tentative hypotheses that may be evolving toward better and better approximations to the truth. He refers on page xiii to "the *fact* that there is no ultimate providence or purpose for our existence" (emphasis added). By what scientific means has this "fact" been established? Many contemporary cosmologists speak of an "anthropic principle," referring to the large number of numerical coincidences in the laws of nature and the initial conditions of the universe that make it seem as though the universe was designed to support the presence of conscious observers. For instance, Barrow and Tipler (1986) point out that even very slight departures from the existing balance of physical particles—ratios of the strength of the strong nuclear force to the electromagnetic force, of the total number of photons to the total number of protons in the universe, and of the mass of the electron to the mass of the proton—would have rendered the universe incapable of supporting life. Also, the rate of cosmic expansion and the degree of inhomogeneity of the distribution of mass in the universe seem delicately contrived to allow the evolution of galaxies and stars (as opposed to having all the matter trapped in black holes or spread out in an entropic "heat death") and therefore to allow the evolution of life. Thus, it is possible that the universe was devised by some sort of agency as a kind of game or amusement park (or, more cynically, a prison or torture chamber) for conscious observers. Thus, that Kurtz classifies the purposelessness of the universe as a *fact* may reflect his own dogmatism and inappropriate belief in the absolute truth and completeness of current scientific knowledge. Of course, it must be admitted that one may in turn inquire into the purpose of the larger system containing both the universe and its creator, so that the ascription

of a purpose to the universe may give rise to an infinite regress; but that does not seem to be what Kurtz is saying. (One can also counter the argument for an anthropic principle in other ways, such as by hypothesizing that many universes are created and we by definition happen to inhabit one capable of supporting life, or by asserting that different universes may give rise to different forms of life, thus reducing the apparent improbability of our present situation.)

In his introduction to the book, Kurtz laments the trivialization of philosophy under the machinery of contemporary academic bureaucracies. In particular, he warns of the narrow focus of practitioners and the compartmentalization of knowledge in all fields of academia. He contends that most major contributions to philosophy have come from outside the academic establishment and that academic bureaucracies stifle creativity and discourage nonconformity. Of course, these remarks will seem strange to many parapsychologists, coming as they do from someone whom the parapsychologists have long regarded as being one of the main upholders of the academic establishment's stifling of parapsychological nonconformity.

Kurtz also warns of the influence of the media. He sees a diminished capacity for critical judgment as one result of replacement of the written word by television as the chief medium of communication in our society. He goes so far as to lay partial blame for the rise of Hitler on the development of radio.

The first five chapters of the book are devoted to the subjects of skepticism, critical intelligence, and the scientific method. Kurtz notes that the scientific humanist and the mystic subscribe to different epistemologies, disagreeing in particular about the possibility of direct experience of the transcendent. In the view of the scientific humanist, asserts Kurtz, one constructs a meaning for one's own life through goals and aspirations. He reviews the history of skepticism and Cartesian doubt, and he contends that knowledge is ultimately based not on sense data but rather on the "common-sense world" of action, behavior, and conduct. He thus adopts a pragmatic view of knowledge and specifically rejects the philosophical position of solipsism. He emphasizes the role of probabilism, fallibilism, and the necessity for suspending judgment in science (although, as we have seen above, he frequently fails to heed his own advice for the suspension of judgment). He argues against Feyerabend's relativistic view that no one method of knowledge acquisition is to be preferred over any other. Rather, Kurtz sees the validity of a scientific theory as being measured by its results, such as practical predictions and the control it affords over nature.

Part II of the book is entitled "Mysticism, Revelation and God" and is largely devoted to a debunking of the Western religious tra-

dition. The first chapter in this section considers the validity of mysticism as an approach to knowledge. Kurtz discusses the analogy between the experience of the mystic and that of a sighted person on an island of the blind, but he winds up by concluding that knowledge obtained through mystical experience cannot hold up to standards of scientific objectivity because it is incapable of corroboration and intersubjective analysis. He denies that mystical experience requires the postulation of a transpersonal realm that is directly experienced in the mystical state, and he proposes several alternative explanations for mystical experiences. He suggests that transcendental states may be due to a schizophrenic-like process involving the dissolution of ego boundaries on the part of the mystic and that repressed sexuality may lead to the experience of a mystical union as a substitute for sex. He relates the voluntary physical suffering undertaken by many mystics to sadomasochistic practices, and he compares mystical experiences to those induced by the ingestion of drugs such as LSD and mescaline. In the end, Kurtz leaves open the question of whether mystical experiences comprise a direct perception of a transcendental reality.

The next three chapters are devoted to a consideration of Christianity, Judaism, and Islam. Kurtz recounts the doubts of many scholars about the accuracy of New Testament accounts of the life of Jesus, noting the many inconsistencies in these accounts and the widespread skepticism over even the existence of Jesus. In a detailed and scholarly account, he draws parallels between Jesus and the contemporary Pythagorean mystic Appollonius (the performance of miracles and a bodily ascension after death were ascribed to both). He notes that in contrast to the case of Appollonius, there is little confirmation of the details of the life or even the existence of Jesus outside of the Gospels, although Kurtz himself leans toward the hypothesis that the historical figure of Jesus actually existed.

Kurtz notes that the time of Jesus was characterized by a proliferation of messianic cults, with many pretenders to the role of messiah, and he compares Christianity to modern cults based on dubious or even fraudulent foundations (such as UFO cults, Mormonism, and so forth). He interprets statements by Jesus, as recorded in the Gospels, to suggest that Jesus was a paranoid schizophrenic and an egotist (such as when Jesus refers to himself as God, etc.). He suggests that Jesus was a magician in the mold of Uri Geller, and he notes that many of the healing miracles attributed to Jesus are poorly documented in terms of the established nature of the illness and that many of the cures seem to involve possibly hys-

terical or psychosomatic disorders (such as blindness and paralysis). In particular, he contends that the raising of Lazarus was staged, with Lazarus an accomplice to the subterfuge, and observes that Jesus was a friend of Lazarus and his sisters prior to Lazarus' resurrection. He interprets a passage in the book of Luke to suggest that Jesus sent seventy "advance men" into towns to be visited, providing a possible source of information to be used in prophecies and miraculous healings.

To account for Jesus' own resurrection, Kurtz hypothesizes that Jesus did not die on the cross but went into a coma induced by a prior condition of tuberculosis (accounting for his weakness when carrying the cross and for the emission of water from his chest when punctured by the lance). In any event, Kurtz notes, Biblical accounts of Jesus' resurrection are inconsistent and amount to hearsay evidence at best.

In a chapter on Judaism, Kurtz reviews the history of Jewish culture and provides a critical analysis of traditional accounts of Moses' life and of the origin of the Jews. He presents ancient accounts asserting that the Jews had no national identity prior to their expulsion from Egypt and that they were expelled because they were sickly during a plague-ridden period of Egyptian history. Here and elsewhere (such as his assertion that Jesus enjoyed a homosexual liaison with Lazarus), Kurtz seems to base his case on the slimmest of evidence, although, not being a Biblical scholar, this reviewer is unable to pass any definitive judgment on Kurtz's analyses.

Kurtz suggests that, like Jesus, Moses used conjuring tricks; and he cites ancient sources expressing the same opinion. He attributes many incidents reported in the Bible to such conjuring techniques and further hypothesizes that Moses exterminated those of his followers who challenged his authority, an action which Kurtz notes is grossly at odds with Moses' own ten commandments.

Turning to Islam, Kurtz attributes Mohammed's revelations to possible psychotic hallucinations or an epileptic disturbance. He also recounts abhorrent actions by Mohammed, such as the massacre of Jewish males and the enslavement of Jewish women.

In a chapter on "Sundry Prophets," Kurtz assails Joseph Smith and the Mormons, the Millerites (a sect based on the doomsday prophecies of William Miller, gleaned from Miller's own interpretation of the Bible), and Ellen White, whose prophetic visions led to the founding of the Seventh Day Adventist Church. (He suggests that White was an epileptic and a plagiarist who incorporated passages from Milton's *Paradise Lost* into her own religious writings.)

Kurtz argues against the acceptance of knowledge based on revelation, which is filled with contradictions and other inadequacies, and in favor of the reliance on rational thought processes. He provides the mass "suicide" of the followers of Jim Jones in Guyana as an example of the dangers of the acceptance of knowledge based on revelation.

All in all, these four chapters comprise a thorough denunciation of organized religion, at least in the Judeo-Christian-Islamic tradition. Kurtz remains curiously silent on the Eastern religions, such as Hinduism and Buddhism. This omission is all the more striking insofar as these religions have formed the basis of several cult movements in the West in recent years.

In a summary chapter entitled "Does God Exist? Deity and Impermanence," Kurtz considers the question of whether religious intuition encompasses a glimmer of understanding of the true nature of noumenal or transcendental realms. Kurtz poses the question of why, if there is a god, do change, impermanence, evil, suffering, death, and conflict exist. These features of the universe, however, do not argue decisively against the existence of a rational Creative Agent. If the world is designed to provide entertainment for, or to enlighten, conscious beings, it may be necessary to have conflict, change, and even evil and suffering to make things more interesting, exciting, or spiritually edifying. Death may be a means of escape from a stagnation caused by ossified behavior patterns and a means of exit from the cosmic amusement park (or at least this particular ride).

Kurtz rejects Einstein's argument that God is evident from the order manifested in the laws of nature. He expresses skepticism that locally discovered natural laws apply to the universe as a whole. Kurtz's view, however, is dissonant with that of most scientists, who believe that they do apply. The alternative view—that our local area is somehow special or idiosyncratic—is a position that they regard as being analogous to the long-discredited geocentric philosophies predating the heliocentric cosmology of Copernicus. Also, there is substantial empirical evidence that locally discovered laws apply to vast regions of the observable universe (and there is little evidence to contradict this view).

As to Heidegger's query of why there should be something instead of nothing, Kurtz denies that the latter (the hypothesis that nothing exists) is philosophically intelligible. He sees the appeal to God as a "first cause" as being a regressive argument (insofar as the question of the causation of God's existence may then be raised). He

presents a somewhat oversimplified and cursory rejection of physicist Paul Davies's argument that the data suggesting the anthropic principle in cosmology (discussed above) provide evidence of a Creative Intelligence. He does not review the many quantitative aspects of Davies's argument for the anthropic principle, but only characterizes Davies as appealing to the harmony and symmetry of the laws of nature. Thus, by omitting any discussion of the numerical coincidences in the universe that are necessary for the evolution of life (at least as we know it), Kurtz misrepresents Davies's argument as being weak.

Part III of the book is entitled "The Science of the Paranormal." It contains Kurtz's most direct attacks on parapsychology. He begins by offering the by now standard skeptical accounts of Spiritualism and the early history of mediumship covering (among other topics) the Fox sisters, D. D. Home, Eusapia Palladino, and the discredited early telepathy experiments with Douglas Blackburn and G. A. Smith. In his accounts of Home, for instance, Kurtz notes that the séances were usually carried out in the dark with poor safeguards against trickery.

Turning to experimental parapsychology, he notes that religious motivation formed an explicit impetus for Rhine's promotion of the doctrine of the nonphysicality of psi. Kurtz rightly rejects a priori philosophical arguments against psi, such as those based on C. D. Broad's "basic limiting principles" (which are really just restatements of the impossibility of psi rather than being any kind of well-established principles of science). Kurtz maintains that in view of the many scientific revolutions in the past one cannot define the fixed structure of reality from presently existing scientific theories.

He repeats many of the standard skeptical criticisms of experimental work in parapsychology, including those of the Pratt-Pearce ESP series and the SRI research with Uri Geller. His review of how Markwick, Scott, and Haskell uncovered fraud in Soal's research is perhaps the best short summary of the Soal controversy in print. Kurtz also reiterates the criticism that there is no well-corroborated theory of psi.

Kurtz insists that there is no replicable parapsychology experiment that is not susceptible to a counterexplanation of fraud or flaws in procedure. He also downplays many lines of research where experiments have been replicated and have not been satisfactorily counterexplained by the critics. The name of Helmut Schmidt, for instance, does not even appear in Kurtz's index.

He reviews the philosophical arguments for and against the existence of an afterlife and presents a good summary of his fellow

skeptics' criticisms about much of the empirical evidence. His discussion includes mediumship, apparitions, spirit photography, the Raudive voices, near-death experiences, out-of-body experiences, and the evidence for reincarnation. For the last, Kurtz really short-changes the work of Ian Stevenson, focusing instead on less credible evidence. He systematically misspells the name of the medium Margery as "Marjery," perhaps indicating his less-than-total familiarity with the evidence he is criticizing. He concludes by noting that elements of wish-fulfillment underlie parapsychologists' denial of death, and he argues that belief in immortality diminishes rather than enhances one's sense of the value and meaning of the present life.

In a chapter entitled "Space-Age Religions: Astrology and Ufology," Kurtz repeats the standard critiques of astrology and reviews the many unsuccessful attempts at statistical corroboration of the predictions of sun-sign astrology. His classification of astrology as a "space-age religion" seems somewhat strange in view of his own acknowledgment of the antiquity of that belief system.

He notes similarities between near-death experiences and UFO abduction reports (including buzzing sounds, the sense of being bathed in light, and the process of undergoing an examination, followed by a return to this world). He suggests that a common psychological process may underlie these experiences, both of which he regards as hallucinatory.

In his concluding chapter, Kurtz seems to adopt the sociobiological stance that there is a genetic or biological basis underlying religious and moral behavior (insofar as both promote group cohesion, etc.). He draws a contrast between Jesus (the mystic) and Prometheus (the doer). This may explain somewhat explicitly the title of his publishing company, for Kurtz may see himself and his fellow secular humanists, like Prometheus, as seizing power from the gods and appropriating it unto themselves.

FRAZIER'S *SCIENCE CONFRONTS THE PARANORMAL*²

Science Confronts the Paranormal is a compendium of reprints of selected articles on the paranormal from the second five years (1981–1985) of publication of the *Skeptical Inquirer*, CSICOP's main journal devoted to debunking the claims of parapsychology and other fringe

² Published by Prometheus Books, Buffalo, NY, 1986, pp. xiv + 367, \$15.95, paper.

areas of science. The book is edited by Kendrick Frazier, who was also the editor of *Paranormal Borderlands of Science*, a collection of writings from the first five years of the *Skeptical Inquirer*.

Part I of the book, entitled "Assessing Claims of Paranormal Phenomena," contains nineteen essays directly dealing with parapsychological phenomena as well as two essays examining the "disciplines" of iridology and palmistry.

The first group of papers falls under the heading "Parapsychology and Belief." Paul Kurtz presents a relatively uncontroversial argument for skepticism. Stephen Toulmin reviews instances when the orthodox scientific establishment resisted novel ideas (such as the theory of evolution and the hypothesis of the electron), and he argues for a cautious openness to phenomena that seem to run counter to the received wisdom at any given time. Piet Hoebens reviews the careers of Martin Johnson and Hans Bender as examples, respectively, of a cautious and conservative parapsychological investigator and of a rash and irresponsible one.

Perhaps the most provocative essay in this group is the one by James Alcock. Alcock begins by attacking the evidence for psi phenomena as being based either on statistical analysis or on case studies. It is not clear what other types of evidence Alcock imagines there could be. He castigates parapsychologists for not using control groups in their experiments and for relying on an assumption of a chance distribution to evaluate their results. In the first place, parapsychologists do use control groups with a high degree of frequency, and, in the second place, any comparison between an experimental and a control condition must rely on the assumption of a theoretical chance distribution (such as the *t* or *F* distribution) so abhorred by Alcock. Thus, the use of a control group does not circumvent the need to make assumptions about theoretical distributions, as Alcock seems to assume. He asserts that the use of control groups and the replications of experiments make experimental artifact only a minor problem in normal science. However, replication attempts are in fact rare in most areas of normal science; and, in any event, the use of a control group does not, as Alcock seems to maintain, eliminate all sources of experimental artifact (such as differential treatment of the experimental and control groups by the investigator). Alcock sees the task-complexity independence and space-time independence of psi as evidence in favor of the artifact hypothesis. He argues (rather strangely) that, to prove that psi is not an artifact, parapsychologists should state the circumstances under which psi will *not* occur. It is difficult, however, to imagine any nontrivial circumstances under which gravitation will

not occur. Does this prove that gravitational effects are due to an artifact? It would seem more logical for Alcock to argue that, to render the hypothesis of psi falsifiable, parapsychologists should be required to state when psi *will* occur.

The next group of papers falls under the rubric of "Expectation and Misperception." Ruma Falk analyzes some instances of apparent coincidence as well as subjects' estimates of the probabilities of such coincidences. She argues in favor of the chance coincidence explanation of spontaneous psi experiences, and she proposes replication of results as a safeguard against data selection in parapsychology. Barry Singer and Victor Benassi present an experiment demonstrating the widespread tendency of students to attribute psi powers to a stage performer even when they have been informed that he is merely a magician using trickery to produce his effects. They discuss failures of syllogistic reasoning in such students. For instance, the students agree that magicians could duplicate all the presented tricks but insist that the present performer used genuine psychic powers. They also fail to see the contradiction between their position and the presented information that the performer was a magician. Singer and Benassi's contribution is followed by John Connor's discussion of how expectancy affects perception. Martin Gardner then discusses misperceptions of space photographs, such as the "stone face" on Mars, and Steven Hoffmaster presents an unfavorable review of the career of Sir Oliver Lodge.

Nine papers deal more specifically with particular parapsychological studies and lines of research. Remote viewing is treated in Ray Hyman's review of Targ and Harary's *Mind Race*. Hyman criticizes much of the remote-viewing literature, including 15 of the 28 studies cited in *Mind Race*, as being insufficiently documented to permit scientific evaluation. These insufficiently documented studies include those that have been published as abstracts in the *Research in Parapsychology* series but not presented as full papers in refereed journals. Hyman's criticism underscores the need for parapsychological work to be published properly if it is to be taken seriously. Hyman goes on to point out statistical and methodological flaws in the remaining 13 studies cited by Targ and Harary. Many of these flaws will be well known to readers of the parapsychological literature; they encompass problems such as target-order cues existing in the subjects' transcripts and the subjects' avoidance of descriptions that would correspond to previously seen targets. For the experiment by Schlitz and Gruber (1980), which is frequently regarded as being one of the most methodologically sound of the remote-viewing studies, he says that Gru-

ber's translations of Schlitz's transcripts into Italian for presentation to the judges could have been systematically biased because Gruber, who served as the agent or "beacon" in the study, knew the identity of the target for each trial. Hyman also discusses failures of skeptical investigators to replicate the remote-viewing findings. He goes on to warn that Targ and Harary's suggested "home exercises" for readers (such as their attempting to find an empty parking space by psychic means) may give people the illusion that they have psychic powers when their performance is really a result of sensory cues, inference, or chance coincidence.

In an essay entitled "Remote Viewing Revisited," David Marks discusses replications of the remote-viewing work occurring after the publication of Marks and Kammann's *The Psychology of the Psychic*. He castigates Puthoff and Targ for their refusal to share their data with skeptics (as did Hyman, who sees data sharing as a necessary part of the process of scientific documentation). Marks repeats his "order cue" criticism, noting that cues regarding target order were still present in the replication series carried out with Pat Price and Hella Hammid. He discusses a failure to account for the "stacking effect" in an experiment by Vallee, Hastings, and Askevold, in which 12 subjects all guessed the same target. He also criticizes an experiment by Dunne and Bisaha (1979) on the basis of selection of data to be presented to the judges. He asserts that the decision about which photographs of the target site and which of the subject's drawings were to be presented to the judges was made on an ex post facto basis, thus artifactually biasing the results.

Two articles by Piet Hoebens deal with the career of the Dutch psychic detective Gerard Croiset. Hoebens charges that descriptions of Croiset's "successes" made by the Dutch parapsychologist Wilhelm Tenhaeff involved distortions of Croiset's statements, with the result that initially vague statements were made to appear much more detailed and accurate. Hoebens also refers to the deletion of errors made by Croiset and the distortion of the confirmatory event to make it appear to conform more exactly to Croiset's description. He reviews one instance of apparent gross falsification of a case by Tenhaeff and discusses many failures by Croiset in the field of psychic detection.

James Randi presents a summary of his investigations of the notorious Columbus, Ohio, poltergeist case. He recounts many apparently fraudulent movements made by the putative poltergeist agent, Tina Resch. He interprets photographic evidence to suggest that Tina threw a phone in an apparent fraudulent attempt to simulate a paranormal movement, and he discusses a videotape apparently showing

Tina pulling a lamp toward her to make it fall. Randi himself was apparently barred from entering the house, whereas the parapsychologist William Roll was allowed full access. Perhaps parapsychologists should do more to invite the cooperation of skeptics and to insure that all investigators have equal access to the relevant data.

A second essay by Randi deals with his by-now-famous "Project Alpha," in which he sent two young magician accomplices to the parapsychology laboratory at Washington University in St. Louis. According to Randi's account, Peter Phillips, the laboratory's director, ignored Randi's suggestions about proper experimental protocols. Macro-PK target objects were marked with tags that could be switched. The subjects were allowed to handle sealed envelopes containing ESP targets while they were alone and unobserved, so that they had an opportunity to remove and examine the target and then reseal it in the envelope by replacing the staples. They were able to remove metal specimens and other target objects from apparatus supposedly designed to prevent such removal. The young magicians were also able to introduce a gap in the sealing of a bell jar, thereby gaining the opportunity to cause a rotor inside the bell jar to move by means of air puffs. Randi details many other incidents in which his stooges were able to produce ostensibly paranormal effects through normal means.

The two articles by Randi are followed by three essays by Martin Gardner. In the first, Gardner defends Randi's Project Alpha against charges of entrapment leveled by Marcello Truzzi. In the second, he argues that parapsychologists should and must use magicians as consultants in the design of experimental protocols and as observers of parapsychological experiments that have special subjects. He also criticizes parapsychologists for their general failure to use traps such as one-way mirrors to detect fraud by subjects. In his third essay, he criticizes the Stanford Research Institute's dice experiments with Uri Geller because of the generally poor description of the experimental procedures, including the omission of such details as who shook and opened the box containing the die. He details his own inability to obtain clarifying details from Targ and Puthoff.

The final contribution directly concerned with parapsychology is Frazier and Randi's chapter on the Tamara Rand hoax, in which a videotape of a "prediction" of the assassination attempt on President Reagan was fraudulently dated to give the appearance that it had been made before, rather than after, the attempt. In this case, the talk-show host was also involved in perpetrating the fraud.

The remaining nineteen essays deal with subject matter that most readers will (I hope) agree is only peripherally related to parapsy-

chology, such as astrology, cryptobiology, and UFOs. Nevertheless, because these topics have been linked to parapsychology by both supporters and detractors of the field and because they sometimes offer important lessons for parapsychology, these remaining essays will be briefly summarized below.

Russell Worrall discusses iridology, the doctrine that the state of health of various bodily organs can be diagnosed by examination of the iris of the eye. He notes the incompatibility of iridological theory with known neurological facts and cites empirical studies that fail to uphold the hypotheses of iridology.

In an essay on palmistry, Michael Park reviews findings of real correlations between hand features and certain genetic abnormalities. He presents no real test of the claims of palmistry, but only notes that these claims receive no support from the above-mentioned correlations. Of course, it would be a relatively simple and straightforward matter to test many of the hypotheses of palmistry, such as the doctrine that the length of one's life is reflected in a certain crease line on the palm.

Paul Kurtz and Andrew Fraknoi review empirical tests of astrological predictions that have yielded only null results. In a related paper, Ivan Kelly and Don Saklofske discuss a study by Hans Eysenck and Jeff Mayo that gave marginal support to a hypothesized relationship between astrological sun sign and scores on an introversion-extraversion test. Some replication attempts corroborated this finding, whereas others produced null results. Kelly and Saklofske propose that the positive results may be due to either a seasonal variation (of birth time) or self-attribution (i.e., that subjects assign to themselves traits consistent with those known by them to be astrologically predicted for them). Kurtz and Fraknoi note that subsequent studies, including one by Eysenck, have supported the self-attribution hypothesis.

Two papers deal with the subject of "moon madness." In a review of Arnold Lieber's *The Lunar Effect*, George Abell criticizes Lieber's statistical analyses as being post hoc in nature and asserts that Lieber's results are compatible with chance variation. He cites failures of other investigators to replicate Lieber's findings. As to Lieber's proposition that the effects are mediated by "biological tides," Abell notes that the total effect exerted by the moon on a person's body fluids is miniscule and that the tidal force exerted by a nearby magazine would be tens of thousands of times greater.

Nick Sanduleak presents a study attempting to replicate Lieber's "moon madness" findings using a Chicago population (one of the

cities studied by Lieber). Sanduleak's study yielded only chance results. He points out that, owing to variations in the moon's orbital distance from the Earth, it is possible for there to be a greater tidal force during the quarter moon than during the new or the full moon. He found no correlation between the homicide rate and an index of the true tidal force. He also reviews studies of national homicide rates, which show no correlation with lunar phase.

Four essays deal with the subject of UFOs. Philip Klass argues against charges of a UFO cover-up by government agencies. Bruce Martin identifies one case involving a repeated UFO sighting as being due to a misperception of a jet plane, and he criticizes J. Allen Hynek for the lack of thoroughness of his investigation of this case.

Two papers deal with the role of hypnosis in UFO investigations. Philip Klass rebuts the view that hypnosis can be used as a "lie detector" in UFO abduction cases (insofar as subjects may be regarded as incapable of lying when under hypnosis). He cites Martin Orne's view that "pseudo-memories" can be induced in hypnotic subjects (sometimes through the use of the subjects' own fantasy capacities in response to leading questions by hypnotists). These "pseudo-memories" may then become incorporated into the subject's memory store even in the waking state. Ernest Hilgard joins Klass in issuing caveats about the role of fantasy and fabrication in hypnosis and notes that it is possible to lie under hypnosis.

Three contributions deal with "Fringe Archeology." Marshall McKusick provides a critique of Barry Fell's theory that America was colonized by diverse European and Mediterranean groups before the time of Christ. These colonies allegedly included a *naval academy* established in *Nevada* by the Libyans! (The obligatory Libyan navy joke will be waived here.) McKusick charges that Fell has misidentified naturally occurring marks as brief inscriptions, has misdated recent inscriptions as being pre-Columbian, and has based his theory on pieces of evidence known to be hoaxes.

Next follows a review of Jeff Goodman's *American Genesis* by Kenneth Feder. In his book, Goodman relocates the site of human evolution from Africa to America (California to be precise) and proposes that these ancient Americans crossed the Atlantic Ocean, landing in France. Feder convincingly rebuts Goodman's argument, including his assumption about the impossibility of humans crossing the Bering land bridge. He argues that Goodman has misdated human skeletons from California as 70,000 years old, whereas recent datings have placed these skeletons at between 8,000 and 11,000 years old. He contends that Goodman has misdated many artifacts as well.

Finally, Joe Nickell argues against any von Dänikenesque extra-terrestrial involvement in the creation of the famous Nazca ground drawings.

Three essays deal with creationism. Isaac Asimov debunks Jastrow's assertion that the Biblical account of Creation receives support from modern cosmology. He notes the poor quality of the analogy (that in the Biblical account, the Earth was created at the same time as the universe was and before the sun and the stars were, and so forth). He is also skeptical of the exactness of the analogies drawn between modern physics and Eastern religions, noting that they are typically based on one interpretation of selected and ambiguous statements.

Robert Schadewald rebuts the creationists' arguments for a young Earth and a Biblical flood.

Steven Schafersman argues against the creationists' claim that dinosaur and human footprints are co-present in the Paluxy River bed near Glen Rose, Texas. He proposes that the marks are erosion channels or dinosaur tracks rather than human foot impressions.

Two essays deal with the Shroud of Turin. Marvin Mueller provides an argument against a supernatural origin of the shroud image and in favor of the forgery hypothesis. Walter McCrone presents an analysis of microscopic particles suggesting that vermilion pigment was used to paint the image.

Finally, in an article on the Loch Ness monster, Rikki Razdan and Alan Kielar contend that the sonar data collected from the lake may be explained without recourse to the postulation of large animate objects. They go on to describe their own null sonar results.

Unfortunately, the book contains no index.

BOOTH'S *PSYCHIC PARADOXES*³

Psychic Paradoxes is the author's personal view of the psi scene. The author, John Booth, describes himself as a "professional magician and mentalist, a student of psychic phenomena and mediumship, an investigative journalist, and a theologian/clergyman" (p. xiv). He suggests that fraudulent psychics may have arisen as imitations of genuine priests, shamans, and other religious figures. He notes that the simulated phenomena produced by such persons cloud legitimate investigations of survival-related phenomena and paranormal powers and

³ Published by Prometheus Books, Buffalo, NY, 1986, pp. xv + 240, \$13.95, paper.

serve to delude the public. He sees parapsychological research as being important and compares the scientific community's hostility and indifference to it with the initial rejection of electricity as being unimportant.

Booth goes on to provide explanations of various mind-reading acts in terms of muscle-reading, the use of prearranged codes, and so forth. He provides short sketches of several mentalists such as Dunninger and Glenn Falkenstein, which constitute an interesting glimpse into a world that professional parapsychologists rarely think about. Uri Geller's background as a magician and stage mentalist is also discussed. The book also contains a complete reprint of a pamphlet published by the author in 1931 in which he describes mentalistic tricks he devised himself when he was 16 and 17.

He provides a few anecdotal, sparse, and somewhat superficial accounts of firewalking, as well as a skeptical account of the Wilkins-Sherman experiment involving thought-transference from the South Pole to New York City. As to the latter, he notes the existence of many inaccuracies in the percipient's descriptions and attributes many hits that did occur to chance coincidence.

He gives a brief history of spirit photography in which he reviews explanations of "ghost photographs" in terms of normal processes such as double exposure. Efforts to trap ghosts (recently popularized in the movie *Ghostbusters*) are also treated. In one colorful incident, a man named Tom Corbett is said to have captured a pub ghost in a wooden box and to have taken the ghost to a different pub. In places, Booth's science seems a little weak. For instance, on page 110 he states that, if an apparition is "the creation of electromagnetic waves," then no camera can capture its image. One wonders what Booth imagines is the cause of photographic images other than electromagnetic waves (i.e., light). He also asserts that if a physical explanation of ghosts is correct (for instance, that they are "reflecting electromagnetic auras"), then "proof of continuing life must be sought elsewhere" (p. 111). However, it does not seem possible to exclude, a priori, the possibility that some aspect of a human being might survive in a physical or quasiphysical form or that a surviving entity might be capable of causing or influencing physical events; such doctrines are perfectly consistent and coherent, albeit far from being particularly intelligible or empirically well corroborated in the present versions.

Booth describes his own investigations of ghosts, and attributes apparitional experiences to delusions, hypersuggestibility, and the misinterpretation of ambiguous stimuli under the influence of expectancy. He hypothesizes that old mansions constitute the main site

for hauntings because their faulty heating systems produce leaks of hallucinogenic gas. On the whole, Booth's treatment of hauntings is based on a rather superficial analysis of rather weak cases. This problem plagues his entire book. Booth's treatment of his subject matter is superficial and is chiefly an account of his own personal encounters with not very impressive phenomena. His coverage is far from comprehensive, and he frequently avoids altogether consideration of any really good evidence for the classes of paranormal phenomena under discussion.

Turning to mediumship, Booth postulates that Arthur Ford deployed stooges in the audience at an Arthur Conan Doyle lecture, but he provides no evidence whatsoever to back up this speculation. As to Eileen Garrett's apparently paranormal acquisition of technical details of a dirigible crash during a trance séance, Booth suggests that copies of the blueprints of the dirigible may have been slipped to Garrett even before the tragedy. He endorses W. G. Lambert's theory that D. D. Home effected his famous levitation by suspending himself with ropes. Booth also accepts Lambert's underground water explanation of Home's physical mediumship. Booth proposes to account for the evidence from "cross-correspondences" in séance material in terms of intercommunication among the mediums involved, research of the classical literature by the mediums involved, and chance coincidence. He observes that many of the so-called correspondences are rather far-fetched in any event.

The last section of Booth's book is entitled "Serious Psi Research." In it, he treats the evidence for disembodied spirits, including the Margery mediumship, Raudive's and Jurgensons's tape-recordings of the voices of departed spirits, Ingo Swann and Harold Sherman's psychic probes of Jupiter and Mercury, and the psychic predictions carried in the *National Enquirer*. The *Enquirer* is the one publication he identifies as being a "professional and widely respected or effective exponent" of parapsychology (p. 207). He provides brief discussions of various parapsychological scandals, including the Levy, Soal, and Harry Price affairs and the Jones boys fiasco, and he makes a cursory mention of the ASPR research on the out-of-body research (with no coverage of the details of that research); but he totally ignores the main body of experimental work in parapsychology, most of which has not been identified as fraudulent. Despite his explicitly expressed concern that "the conjuring and lay worlds are not as aware as they should be of the serious scientific research into psi being conducted in universities, laboratories and private groups around the world" (p. 208), his own treatment is totally dishonest in its one-sided presen-

tation of the evidence and its neglect of the best data in the field. Booth portrays the *National Enquirer* predictions as being an example of one of the most rigorous forms of psi research. This sort of intellectual legerdemain may reflect Booth's background as a conjurer rather than a scientist. Indeed, his lack of familiarity with science in general and experimental parapsychology in particular is apparent in several errors he commits, including his attribution to John Wheeler of Feynman's interpretation of antimatter as matter moving backward in time, his use of "stimulae" as the plural form of "stimulus," and his classification of the Foundation for Research on the Nature of Man as a subdivision of the Institute for Parapsychology rather than the other way around.

He argues that the capacity to precognize accurately would be a horrifying thing to contemplate, although to say this is an appeal to emotion and a form of wishful thinking rather than a scientific argument against precognition. He contrasts uncritical belief in the paranormal with "straight, hard thinking." Let us hope his book is not an example of the latter.

The last chapter in the book is devoted to a consideration of the nature of possible afterlife states. Booth seems favorably disposed to the notion of some sort of afterlife, which may perhaps reflect his own theological background. He ends the book with another of his arguments based on wishful thinking when he contends that the non-existence of psi phenomena would be a desirable thing because psi would threaten the doctrine of free will, allow the invasion of privacy, and so forth. While he admits that some real psi phenomena may exist, he denies the possibility of precognition and PK.

HARRIS'S *INVESTIGATING THE UNEXPLAINED*⁴

Investigating the Unexplained by Melvin Harris is in many respects a companion volume to Booth's *Psychic Paradoxes* insofar as both books are written by persons who are not scientists, both provide a somewhat myopic and personal view of parapsychology based on their own individual experiences, and both give a one-sided view of the field, neglecting much of the better evidence for psi. Harris is described on the book's jacket as a writer, broadcaster, and researcher for the British Broadcasting Corporation, and many of the cases he presents are based on his own personal research.

⁴ Published by Prometheus Books, Buffalo, NY, 1986, pp. 222, \$19.95, cloth.

Harris begins with the Amityville Horror case, concentrating on the skeptical investigation by Moran and Jordan. That inquiry produced denials from both the police and clergy that they had ever investigated the house. Harris cites conflicting testimony by George Lutz, one of the chief informants about the haunting, and he suggests that William Weber, the defense attorney for Ronald Defoe (who was convicted of prior murders in the house), promoted the sensationalization of the case to win a new trial for his client.

Harris then reports on the modern-day physical mediumship of Paul McElhoney, which was characterized by the almost anachronistic production of ectoplasm and apports as late as 1983. He recounts the exposure of McElhoney, which stemmed from the discovery that a to-be-materialized carnation had been hidden in a tape recorder. He discusses the hotline to departed Hollywood stars opened up by the British medium Doris Stokes (no relation to the present reviewer I hope), including her memorable joint interview with the discarnate Marilyn Monroe and Robert Kennedy.

Harris then turns his attention to psychic detectives. He cites many cases where their apparently miraculous successes, widely reported in the media, withered under close scrutiny. Frequently their actual descriptions to the police were far from the detailed and exact descriptions reported in the press. The details in published accounts often could not be corroborated by, or were in direct conflict with, police records. Harris occasionally overstretchers himself in his debunking efforts, as on page 54 where he explains how the name of a future victim in the Yorkshire Ripper killings was predicted; his explanation is based on a highly improbable, convoluted, and complex chain of mental associations that is too lengthy to reproduce here. He cites many instances of failures, although these do not prove anything beyond the fact that not all self-proclaimed psychic detectives are omniscient. What Harris's discussion does demonstrate rather graphically is that you cannot believe everything you read in the papers and that to solve a criminal case efficiently, one might be better off consulting Sherlock Holmes than Arthur Conan Doyle.

Several instances of truly strange phenomena also receive attention in Harris's book. These include the abduction of a regiment of from 250 to 800 men by a flying saucer, aid given to British troops in battle by St. George and a band of angels, and a spectral appearance by Vice Admiral Sir George Tryon. Harris argues that most of these incidents are poorly documented, that the testimony of the relevant witnesses is often inconsistent, and that some stories (such as the St. George rescue) can be shown to be fabrications. He also reports several

cases that can be shown to be highly distorted versions of previously published accounts of ghostly experiences. One involved the precognition of an elevator accident and another of an annual tryst on a bridge still kept by the spirit of a dead woman.

Psychic predictions do not escape Harris's skeptical eye. He attributes a prophecy of Prince Edward's abdication of the throne to inference. He also gleefully cites astrologer and mystic R. H. Naylor's 1936 analysis of Hitler as a "kindly soul and lover of little children" who would "never be a willing party to war" (p. 121). He takes on the Bermuda Triangle, Nostradamus, and Jean Dixon as well. Throughout the book, Harris adopts a journalistic rather than scholarly approach. His treatment consists primarily of exposures of weak cases and unsubstantiated reports. Such material cannot of course be used to disprove the existence of psi phenomena although it may lead one to be extremely wary about accepting casually investigated claims at face value. Like John Booth, Harris ignores the best evidence for the phenomena he is debunking, and in this respect his account is one-sided and is therefore not a scientific analysis of the phenomena under consideration. Again, Harris, like Booth, is not a scientist, and his journalistic training may be insufficient for enabling him to achieve the balance and objectivity (or at least the semblance thereof) that one would hopefully expect from a scientist.

The most telling of Booth's criticisms for serious students of parapsychology is undoubtedly his debunking of the Gordon Davis case. The medium Blanche Cooper, communicating with the supposedly departed spirit of (the then very much alive) Gordon Davis (a friend of the parapsychologist S. G. Soal), gave an accurate description of a house that Davis would in fact move into well after the séance. Harris charges that Soal doctored the evidence for these readings, much as he is widely believed to have fabricated his experimental evidence for ESP. Specifically, Harris charges that Soal added details about the statue of a black bird in Gordon Davis's house to the transcript of a séance held on January 30, 1922. Duplicate records of that séance show no record of any reference to Gordon Davis. Harris proposes that the original description of Davis's house was probably fraudulent as well because Soal lived nearby and could easily have looked in the windows to gain the data necessary for faking the description.

In a chapter on past-life regression, Harris provides a case in which the details of a past-life experience under hypnosis could all be shown to have been derived from memories of reading a single historical novel. (Such reemergence of forgotten material is termed "cryptomnesia.") Harris also describes a case showing how hypnotic regression can be used to identify the source of such cryptomnestic material.

After a brief chapter devoted to stage techniques for simulating paranormal weight gains and losses, Harris turns his attention to Mrs. Garrett's communications regarding the R101 dirigible disaster (a subject also treated by Booth). Harris claims that some of the technical details in Mrs. Garrett's statements, such as the existence of a hydrogen-carbon fuel experiment, were not accurate. He asserts that the verification of many other technical details was inadequate, being based largely on the testimony of a store steward who possessed no real knowledge of aeronautical technology. He notes that many other details had been published in newspapers and popular magazines and could have become known to Mrs. Garrett through her social network.

Harris concludes by examining inaccuracies in case reports published by the Society for Psychical Research, including the case of John Donne's vision of the death of his child and the much-cited (by skeptics) case of Judge Edmund Hornby's visitation by the phantom of a recently deceased reporter. In the latter case, the judge's memory was found to be grossly inaccurate. One of the chief errors in the judge's account was that he was not, as he reported, married at the time of the reporter's death. As Stevenson (1987) points out, Hornby may well have been living with the woman he later married at the time of the vision, but hesitated to say so to protect his wife's reputation in those Victorian times. In any event, errors will occur, and it is an act of rhetoric rather than science to detail errors in the SPR case collection while ignoring the best possible cases.

CONCLUSIONS

These four books reveal the skeptics to be a diverse rather than monolithic lot. Like parapsychologists, they vary in the degree of their scientific skill and knowledge as well as in their objectivity and freedom from dogmatism. Some critics are helpful to parapsychology in elucidating real methodological, statistical, and even philosophical problems in the field. Others harm parapsychology (i.e., the objective pursuit of the truth about psi phenomena) by misrepresenting the data to the public and to each other or by offering ill-informed criticisms that serve to obfuscate instead of clarifying central issues for followers of the literature. Rather than two distinct camps, there is a continuum of opinion ranging from wild-eyed psi mongers to dogmatic defenders of scientific orthodoxy. From the standpoint of unravelling the truth about psi phenomena, it would be most useful for critics and skeptics to join one another in a constructive dialogue by publishing in the same journals and attending the same professional meetings. After

all, in the end we are all parapsychologists, even if some of us are followers of the Kurtzian school of parapsychology and others of us are adherents to the Puharichian tradition.

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