

The Ten  
Outstanding  
Skeptics  
of the  
Twentieth  
Century



# Who are the outstanding skeptics of the twentieth century?

We put that question to an elite group of scholars who should know—the Fellows and Scientific Consultants of CSICOP. The results follow on these pages.

We wanted their selections to be free form. We provided no list of names and we offered no suggested criteria. Those they selected could be chosen from any combination of science, scholarship, writing, public education, outreach, investigation, activism, leadership, or other qualities—whatever they found most important. The only restriction was that the person's major contributions have been made in the twentieth century.

Some cast their votes quite widely, choosing eminent figures from twentieth century science and philosophy. Others focused more on people identified specifically with the skeptical movement. With most it seemed a combination. All this seems fitting. "Skeptic" can be defined in a wide variety of ways. Skepticism is entwined with science and philosophy—and with numerous other fields of scholarship, inquiry, and investigation as well.

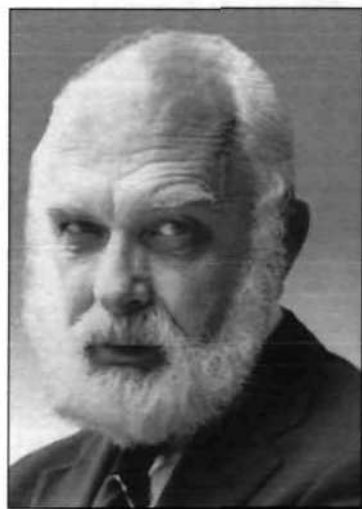
Although our main interest was in identifying the 10 outstanding skeptics with a 1 to 10 ranking, the voters were encouraged to list other prominent skeptics beyond just 10 if

they wished, and many did so. In this manner, nearly 50 different individuals received at least one vote.

The main interest here is not in ranking people in comparison with each other but to honor and recognize those individuals who are recognized as truly outstanding by their peers.

In the pages that follow we present photos and brief profiles of those selected. Comments were also solicited, and some of them are included here.

We are also interested in your own brief comments and suggestions. We'll try to publish some in a future readers' letters column.



## James Randi

For decades, James Randi has been the world's leading skeptical investigator of paranormalists and other pretenders to scientific miracles. Randi uses a mastery of conjuring skills (stage name "The Amazing Randi"), an irrepressible

energy, a sharp critical intelligence, and a fine understanding of science to investigate and expose paranormal, occult, and supernatural claims. His investigations of spoonbender Uri Geller and televangelist Peter Popoff are among his most famous exposés, but he has been tireless in designing tests and exposing flim-flam wherever it arises, from psychic surgery and dowsing to psychokinesis and ESP. His controversial Project Alpha planted magicians in a university-based parapsychology labora-

tory to see if the physicist-investigator could detect deception. He was an invited member of the *Nature* scientific team that investigated a French biochemist's claims of water with memory. Randi's lectures and television appearances have entertainingly educated audiences worldwide about the differences between genuine science and pseudoscience, the methods of psychic claimants, and the pitfalls of self-deception and gullibility. Respected by scientists and skeptics, feared

## The 10 Outstanding Skeptics of the Century

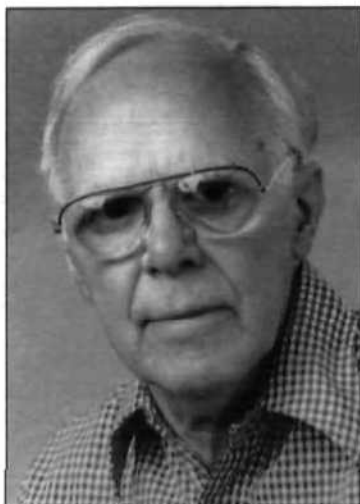
1. James Randi
2. Martin Gardner
3. Carl Sagan
4. Paul Kurtz
5. Ray Hyman
6. Isaac Asimov
7. Philip J. Klass
8. Bertrand Russell
9. Harry Houdini
10. Albert Einstein

by paranormal claimants, Randi was named a MacArthur Foundation Fellow in 1986 and now carries out his investigations through the James Randi Educational Foundation. Notable books: *The Truth About Uri Geller, Flim-Flam!, The Faith Healers, The Mask of Nostradamus, Houdini — His Life and Art, and An Encyclopedia of Claims, Frauds, and Hoaxes of the Occult and Supernatural.*

## Martin Gardner

Martin Gardner published his first journal article about pseudoscience a half century ago in 1950 and his first book about pseudoscience in 1952. He has never stopped. That first book, the lively *Fads and Fallacies in the Name of Science*, influenced and informed generations of scholars and future skeptics, and became a classic. To many leaders of the modern skeptical movement, which he helped found, he is simultaneously a colleague and a hero. Essentially an independent scholar but without academic trappings, the polymathic Gardner keeps tabs on all kinds of topics and issues in mathematics, science, philosophy, and religion, not to mention the fads and foibles of paranormalists, fringe scientists, quacks, and pseudoscientists. And he writes about them all with clarity, wit, authority, and penetrating insight. For three decades he wrote the highly

popular Mathematical Games column for *Scientific American*, and books based on them still appear. He's written for the SKEPTICAL INQUIRER since its beginning, and his Notes of a Fringe-Watcher column has appeared in every issue since 1983. He followed *Fads and Fallacies* with later books about pseudoscience and fringe science, including *Science: Good, Bad, and Bogus; The New Age; On*

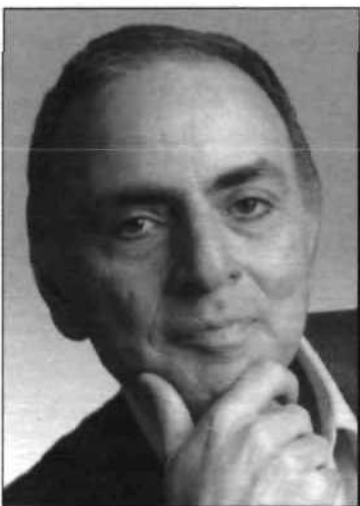


*the Wild Side*, and *Weird Water & Fuzzy Logic*. He has also written classic works of popular science, such as *The Ambidextrous Universe* and *The Relativity Explosion*, as well as whimsical works such as *The Annotated Alice*.

Personal works of philosophy include *The Whys of a Philosophical Scrivener*, the recent *The Night Is Large: Collected Essays 1938–1995*, *Logic Machines and Diagrams*, and *Introduction to the Philosophy of Science*, written with Rudolf Carnap. An acerbic observer and critic of pseudoscience, he is thought of as a hard-nosed skeptic—yet his personal demeanor is quiet and gentle, and he is famous for adopting the H.L. Mencken aphorism, “One horselaugh is worth ten-thousand syllogisms.”

## Carl Sagan

Carl Sagan was the people's astronomer, the public's scientist. In a brilliant career foreshortened by death in 1996 at the age of 62, he used his passion for science, intelligence,



charisma, and formidable literary and communications skills (*The Dragons of Eden* won the Pulitzer Prize and it wasn't even his best book) to turn several generations of young people on to the wonders of science and the rewards of critical thinking. He had a unique talent to inspire wonder and awe at the true mysteries of science while cautioning against bogus science and the temptations of wishful thinking and self-deception. The result was a nearly

## Nobelists, Women, Fellows

- Seven Nobel Prize winners received votes as outstanding skeptics: Bertrand Russell (literature), Albert Einstein (physics), Richard Feynman (physics), Barbara McClintock (physiology or medicine), Steven Weinberg (physics), Niels Bohr (physics), and George Bernard Shaw (literature).
- Six women received votes: Barbara McClintock, Elizabeth Loftus, Simone de Beauvoir, Susan Blackmore, Rachel Carson, and Eugenie Scott.
- Seven of the top 10 outstanding skeptics (Randi, Gardner, Sagan, Kurtz, Asimov, Hyman, Klass) were founding Fellows of CSICOP. The other three (Houdini, Russell, and Einstein) died prior to CSICOP's existence.

unparalleled champion of science and skepticism and foe of pseudoscience. As a professional astronomer he helped shape and articulate the golden age of planetary exploration when we first sent unmanned emissaries to the major planets. His interests in planetary science, the origins of life, and the scientific search for extraterrestrial intelligence drove his career, but he ranged freely into fields far beyond astronomy. The world was Sagan's classroom. He believed strongly in democracy and the ability of the common person to appreciate science if portrayed in a clear and legitimately exciting way. His frequent network television appearances, his popular books and articles, and his highly successful *Cosmos* public television series all brought his messages to the masses worldwide. His last book published before his death, *The Demon-Haunted World*, ranged over late-twentieth-century fringe science and warned of the perils of a public unable to distinguish real science from bogus science. Other noteworthy books: *The Cosmic Connection*, *Cosmos*, *Broca's Brain*, *Shadows of Our Forgotten Ancestors* (with Ann Druyan), *A Pale Blue Dot*, and *Billions and Billions*.

## Paul Kurtz

Paul Kurtz is a philosopher and intellectual with a strong practical bent and a special talent for visionary leadership. He has a knack for founding and running organizations and a passion for applying unfettered inquiry to broad human issues. In a long career as professor of philosophy (now emeritus) at SUNY-Buffalo, where he received acclaim as a distinguished teacher, Kurtz also wrote prolifically (his scholarly books now number more than thirty) and always in steadfast defense of a scientific, skeptical worldview. Much of his writing has been on the nature and philosophy of skepticism. He founded three important organizations that carry out missions about which he is deeply committed: the Committee for the Scientific Investigation of Claims of the Paranormal, publisher of the SKEPTICAL

INQUIRER; the Council for Secular Humanism, publisher of *Free Inquiry* magazine (which he also edited until recently); and Prometheus Books, which publishes a hundred books a year in philosophy, science, skepticism, humanism, freethought, and ethics. He still chairs the former two organizations. His twin passions for humanism and skepticism echo throughout everything he does. With diplomatic skills and an internationalist perspective, he has an uncanny ability to bring diverse people together. Over the decades he has organized dozens of international conferences and authored three humanist manifestos (including the just-published *Humanist Manifesto 2000*), signed by eminent scholars and thinkers worldwide. Still as

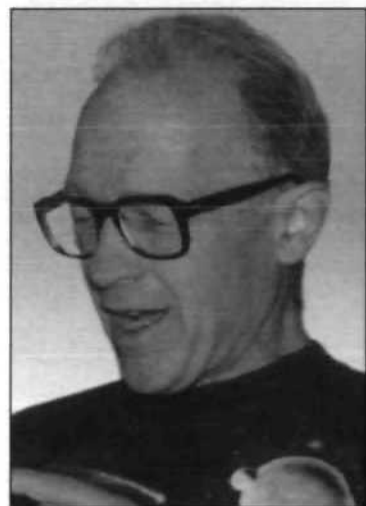


active as ever, he continues to take a deep interest in all issues of intellectual inquiry, open-minded skepticism, and the use of scientific methods to improve the human condition. Notable books: *The Transcendental Temptation*, *The New Skepticism*, *A Skeptic's Handbook of Parapsychology*, *The Courage to Become*, *Exuberance*, and *Philosophical Essays in Pragmatic Naturalism*.

## Ray Hyman

Ray Hyman is considered the leading constructive critic of academic para-

psychology research. A longtime professor of psychology (now emeritus) at the University of Oregon, Hyman has taught about the psychology of belief and self-deception and conducted painstaking critical analyses of published parapsychology experiments. An amateur magician, he has critiqued experiments with highly visible psychics and other psychic claimants conducted by private scientific and government organizations. Despite intense controversies, he has managed to maintain the respect of both parapsychologists and fellow skeptics. As a well-informed outside critic, he is often credited with helping raise the quality of parapsychological research. He has conducted detailed critical analyses of Ganzfeld experiments—research that parapsychologists find compelling but he so far does not. In 1995 he was one of two experts the CIA contracted for an outside evaluation of the military's twenty-year program to see if alleged remote viewing could assist with intelligence gathering. His essentially negative evaluation was reflected in the sponsor's report. He has consistently maintained that parapsychology must refine its techniques if it is ever to persuade the scientific community that it has some-



thing significant. He has also cautioned skeptics on the need to become better informed about the research they criti-

cize. Notable books: *Water Witching USA* (with Evon Vogt), which explains belief in dowsing, soon to be published in a third edition; *The Elusive Quarry: A Scientific Appraisal of Psychical Research*, a collection of his papers about parapsychological research, scientists' involvement in the paranormal, psychic phenomena, and the psychology of belief.

## Isaac Asimov

Isaac Asimov was the master science popularizer of his time, perhaps of all time. Famous at an early age for his science fiction, he soon also turned to science fact. He was a Ph.D. biochemist and polymath turned full time to writing. From the 1950s until his death in

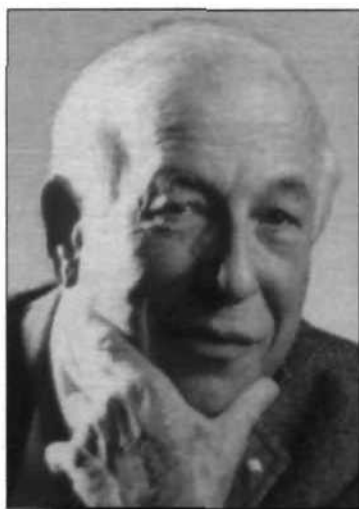


1992 he wrote prolifically about every aspect of science—and with enormous clarity, directness, and charm. His audience was always the lay person. Possibly no one has ever amassed a body of written work simultaneously so voluminous (nearly 500 books), diverse, and substantive. He loved the historical approach, and his works always put scientific progress into historical perspective. Asimov was a steadfast defender of science and reason and foe of nonsense, superstition, and pseudoscience. (His 1986 SI essay, "The Perennial Fringe"

pointed out the comforting appeal of paranormal beliefs: "...a thumb to suck, a skirt to hold.") He never veered from forthrightly stating the truth as found by science, wherever it led. He revered learning and intellect and clear thinking and was disgusted by their opposites. He blasted astrology, creationism, all pseudoscience. Despite his tough mindedness, his writings were usually congenial, the "Good Doctor" talking colloquially to the "Gentle Reader." A few of his notable books: *Asimov's New Guide to Science*, *Asimov's Biographical Encyclopedia of Science*, *The Roving Mind* (dedicated to CSICOP), *In Memory Yet Green*, *In Joy Still Felt* (both autobiographies), *The Left Hand of the Electron*, *The Planet That Wasn't, X Stands for Unknown*, *The Relativity of Wrong*, and (science fiction) the *Foundation* series, *I, Robot*, *The Martian Way*, *The Gods Themselves*.

## Philip J. Klass

Philip J. Klass, sometimes called "The Sherlock Holmes of UFOlogy," has been the world's leading skeptical investigator of UFO claims for well over



three decades. In a field dominated by proponents and wishful believers, he and a few colleagues have been the almost lone voice of careful, reasoned

analysis and critical thinking to bring balance to the topic. His UFO investigations have always been a sideline to his nearly thirty-four-year career as a distinguished Washington-based senior editor (and since his "active retirement" in 1986 he has been a contributing editor) of *Aviation Week & Space Technology* magazine, the world's leading aerospace publication. He has always focused his efforts on investigations of "best cases"—those that UFO proponents identify as the best evidence of UFOs. A Fellow of the Institute of Electrical and Electronics Engineers, Klass brings a methodical approach and an innate skepticism to conduct detailed investigations and evaluations. He carries out extensive correspondence with colleagues and UFO proponents. His writings are clear, detailed, and comprehensive.

Notable books: *UFOs Identified*, *UFOs Explained*, *UFOs: The Public Deceived*, *UFO Abductions: A Dangerous Game*, *Bringing UFOs Down to Earth* (for young readers), and *The Real Roswell Crashed-Saucer Coverup*. He is also founder and editor of the *Skeptic's UFO Newsletter*. In 1999, an asteroid was officially named Klass 7277 in his honor. Klass has long been chairman of CSICOP's UFO Subcommittee. In 1994 he was awarded CSICOP's Distinguished Skeptic Award.

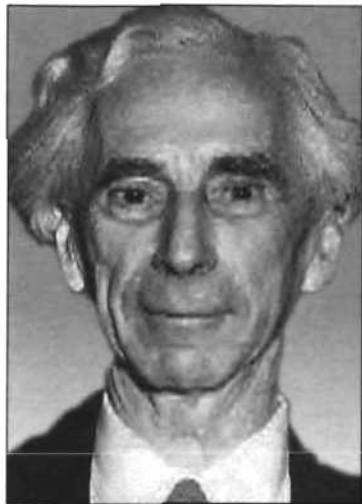
## Bertrand Russell

Bertrand Russell was one of the leading philosophers of the twentieth century.

Born in West England, Russell wrote widely, covering topics including epistemology, psychology, morals, education, and political and social reform.

Russell believed that logic was capable of untangling many of the problems that have vexed philosophers throughout history. Russell was a defender of the humanist outlook and believed that despite mankind's possible extinction by nuclear warfare, we must confront the indifferent or hostile universe and stand for our ideals.

He was a Fellow of Trinity College,



though his activities on behalf of peace in the First World War caused him to lose his fellowship. Russell later received an Order of Merit in 1949 and the 1950 Nobel Prize in Literature. He is the author of dozens of books and treatises. His writings include *The Problems of Philosophy*, *Introduction to Mathematical Philosophy*, *Principia Mathematica*, *Logic and Knowledge*, *Sceptical Essays*, and *Mysticism and Logic and Other Essays*.

## Harry Houdini

The world's best-known magician and escape artist, is also the twentieth century's most famous ghostbuster. Born Ehrich Weiss, he took his stage name from French conjurer Robert-Houdin and became (as a poster heralded) "The World's Handcuff King & Prison Breaker."

Later he used his knowledge of magic to expose the secrets of such wonderworkers as "the Spaniard with X-ray Eyes," an "Egyptian Miracle Man," and a host of spiritualist mediums offering "materializations" and other séance deceptions.

Houdini challenged mediums to perform under test conditions and offered various inducements for demonstrations of genuine psychic phenomena, including \$10,000 as part of a *Scientific American* reward. His efforts—including his books, *A Magician Among the*

*Spirits and Miracle Mongers and Their Methods*—caused spiritualist devotee Sir Arthur Conan Doyle to break off their friendship. After Houdini's untimely death on Halloween, 1926, his wife Bess attempted to contact his spirit through mediums, seeking a pre-arranged message. But after ten years (despite a sham



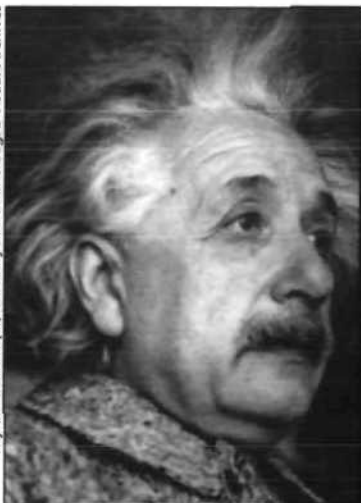
contact by the notorious medium Arthur Ford) Bess extinguished the "eternal light" she had kept by his portrait, concluding: "Houdini hasn't come. I don't believe he will come."

Houdini's life is celebrated in countless movies, books, and other venues, including annual Halloween séances at which—although he is invariably a no-show—Houdini's legacy is kept alive.

## Albert Einstein

In the single year of 1905 a young physicist named Albert Einstein published papers on three topics that revolutionized our view of the universe. One (for which he later won the Nobel Prize) explained the photoelectric effect in terms of the then-new quantum theory of Max Planck. One provided the first mathematical analysis of Brownian motion. And one propounded the special theory of relativity, after which physics would never be the same. By assuming a constant velocity of light,

the work explained the earlier Michelson-Morley experiment, deduced the length-contraction and mass-enlargement effects of FitzGerald and Lorentz, and abolished the notion of absolute time. This was followed by a short published note working out the equivalence of mass and energy in the famous equation  $E=mc^2$ . His crowning achievement came in 1915 with publication of his paper on the general theory of relativity, a wholly new theory of gravitation based on the curvature of space-time. General relativity had numerous specific consequences that could be tested experimentally. When observations confirmed the predictions, Einstein's reputation as the premier scientist of the century was assured. Many polls conducted in 1999 chose Einstein as the most influential person of the twentieth century. It was



Sky and Telescope, courtesy AIP, Emilio Segrè Visual Archives

he who signed the famous letter to President Roosevelt urging him to establish the program that led to the atomic bomb. Later Einstein fought to end the threat of nuclear warfare. Einstein's brilliance and achievements, his kindly manner, his philosophical nature, his dramatic visage, his seeming indifference to material matters, all presented the rare reality of a preeminent philosopher-scientist simultaneously revered by intellectuals and beloved by the public.

## Other outstanding skeptics who received multiple votes or at least one first-place vote:

- |                       |                      |
|-----------------------|----------------------|
| 11. Richard Feynman   | 18. Stephen Barrett  |
| 12. Joe Nickell       | 19. Bart Bok         |
| 13. Karl Popper       | 20. Michael Shermer  |
| 14. H.L. Mencken      | 21. Kendrick Frazier |
| 15. Richard Dawkins   | 22. Mark Twain       |
| 16. Stephen Jay Gould | 23. Oscar Pfungst    |
| 17. James Alcock      | 24. Robert A. Baker  |

### Other persons who received votes:

Heini Hediger, Barbara McClintock, Frederick Crews, George Santayana, David Marks, Elizabeth Loftus, Eric Dingwall, Joseph Jastrow, I.F. Stone, William Jarvis, John Dewey, Simone de Beauvoir, Milbourne Christopher, Donald Menzel, Alfred Kinsey, Steven Weinberg, Corliss Lamont, Ambrose Bierce, Sidney Hook, Susan Blackmore, Abraham Koovoor, Mohandas Ghandi, Steve Allen, Johnny Carson, George Abell, B. Premanand, Rachel Carson, Richard Kamman, Walter McCrone, George Bernard Shaw, Niels Bohr, The FDA, Lewis Thomas, Eugenie Scott, Bill Nye, Douglas Hofstadter, Salman Rushdie, C.E.M. Hansel, B.F. Skinner, Barry Beyerstein, John Paulos, Andrew Fraknoi, John Stossel, Robert Rosenthal, The Scooby Doo Gang, Terence Hines, Robert Sheaffer, D.H. Rawcliffe, Anos Tversky, Albert Ellis. □

## Skeptics Not to be Forgotten

Several scholars and investigators received top ten or multiple votes who made outstanding contributions to skepticism in the early or mid-portions of the twentieth century and may not be as well known to audiences today. Here are four:

- **Joseph Jastrow** (1863–1944) A true pioneer in what is now known as modern skepticism or the skeptical movement. A professor at the University of Wisconsin, he was a dedicated skeptic, student of C.S. Peirce and friend of Alexander Herrmann, Harry Kellar, Harry Houdini, Howard Franklin Thurston, and other contemporary magicians. His books *Fact and Fable in Psychology* (1900) and *Wish and Wisdom: Episode in the Vagaries of Belief* (1935) demonstrated the gullibility of humanity in all ages and places.
- **D.H. Rawcliffe** Another pioneer, like Jastrow. His book *The Psychology of the Occult* (available as a 1959 Dover reprint under the title *Illusions and Delusions of the Supernatural and Occult*) exposed, rationally, ESP and telepathy, stigmata, séances, auras, levitation, firewalking, automatic writing, ghosts, dowsing, mental healing, mediums, etc., long before modern skeptics every approached these topics.
- **Oscar Pfungst** (1874–1932) German animal psychologist, uncoverer of the Clever Hans effect and fallacy, which was characterized by James R. Angell (1911) this way: "No more remarkable tale of credulity founded on unconscious deceit was ever told, and were it offered as fiction, it would take high rank as a work of imagination."
- **Milbourne Christopher** (1914–1984) A noted American magician and illusionist, he headed the Occult Investigations Committee of the Society of American Magicians. Books such as *ESP, Seers, and Psychics* (1970) and *Mediums, Mystics & the Occult* (1975) exposed the secrets of psychics, astrologer, thought readers, Lady Wonder (the "talking horse"), poltergeists, spiritualism, and so on.