

tem as *radical* behaviorism was his willingness (and requirement) to account for private events. He did not set these apart and require a separate explanatory system for them. He never denied that people think or feel, but he did question the assumption that these events are somehow different than overt behavior and require mentalistic/nonphysical accounts to explain them.

Chiesa makes very clear the rational bases for studying behavior from an RB perspective. In so doing she refutes many common criticisms of Skinner and RB that result from misunderstanding of the position, and from overgeneralizations from Skinner's predecessors with whom he actually held very little in common. Her discussion of the history of the philosophy of science, including a vivid parallel between Ernst Mach (and David Hume) and Skinner, is engaging. The net result is the conclusion that, within psychology, RB is the closest approximation to the modern natural sciences in philosophy and methodology.

Skinner often wrote of the many

problems that threaten us: pollution, overpopulation, warfare, violence, to name a few. To change the behavior that results in these threats requires an effective science. However, if the science employed consists of hypothetical constructs that are said to cause behavior (e.g., mind, intelligence, belief, motivation), there is no hope—there is no means by which to change hypothetical constructs. Chiesa's well-thought text will at least foster skepticism of these theories of behavior. Better yet, it may attract well-deserved interest in RB, which has generated numerous functional relations between behavior and its context, and it is the components of the context that can and should be changed.

References

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claims have helped Meier become a cult figure and leader of a Swiss commune known as the Semjase Silver Star Center. He has been promoted in the United States by such credulous writers as UFO buff Wendelle Stevens (who wrote two books advancing Meier's claims and edited two volumes of his "contact notes") and Gary Kinder (author of a naive book about Meier, *Light Years*, published in 1987 by Atlantic Monthly Press).

Over the years, UFO investigator Kal K. Korff has cast doubts on Meier's claims, first in a small, self-published book in 1981, then in subsequent articles in UFOlogical magazines, and with lectures at UFO meetings and conferences. Now he has produced his magnum opus on the Meier saga, *Spaceships of the Pleiades*, a 439-page tome that subsumes all previous writings on Meier.

To gather new evidence, Korff set out for Switzerland. To avoid being identified as the notorious Meier skeptic, he disguised himself by letting his hair and beard grow and adopted the undercover name "Steve Thomas." Armed with a hidden video camera, he and a female companion appeared at Meier's rural commune for six visits—three of which were "covert," including a nighttime visit by Korff who was dressed in an army camouflage outfit to collect soil samples from some "UFO landing tracks."

Later, back in the United States, Korff had analyses conducted on the soil samples, the myriad Meier photographs purchased at the commune gift shop, and other materials. Here is a brief synopsis of his findings:

UFO photographs. Based on certain known factors (such as the focal length of the camera Meier uses), a mathematical formula can be used to calculate the size of the spaceships in Meier's photos. Never are they the large size—"22.75 feet in diameter"—that Meier alleges; instead, they are invariably small models placed relatively close to the camera. Computer analyses of some photos reveal apparent strings or wires used to



Fakeships of the Pleiades

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Spaceships of the Pleiades: The Billy Meier Story. By Kal K. Korff. Prometheus Books, Amherst, N.Y., 1995. 439 pp. Hardcover, \$25.95.

Since 1975 a Swiss farmer named Eduard "Billy" Meier has claimed to have had more than seven hundred contacts with extraterrestrials from the star cluster Pleiades, particularly with a "Pleiadian female cosmonaut" named Semjase. The Pleiadians have chosen Meier to be a prophet of Humanity, he says, and to lead earthlings into the New Age and beyond. He has even time-traveled, once having saved Jesus from a beating, according to one UFO lecturer.

As "proof" of such claims Meier has not only produced voluminous "contact notes," but also collected alleged Pleiadean rock, mineral, and metal samples, and has taken more than a thousand UFO photos and films. This is made all the more remarkable, his supporters say, by the fact that he is a sixth-grade dropout and has only one arm, limitations that should have prevented the sophisticated hoaxes skeptics accuse him of perpetrating. Moreover, reports that laboratory tests verify his various

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hold up the models. One series involved ten photos that were deliberately double exposed, while additional photographs exhibited other problems (pp. 135–219).

Spaceship movies. In Meier's movie footage of "Pleiadian ships," the alleged craft rock back and forth in the wind like lightweight models tethered to helium balloons. Korff achieved the same effect with similarly tethered models. Indeed, he notes that "balloons can be seen in the background of many of Meier's pictures" (p. 220).

"Time-travel" photographs. Meier has produced various photos that supposedly prove he has traveled into space aboard Pleiadean spacecraft. Unfortunately, Korff establishes that Meier's photographs of Venus could not have been taken with his camera, as claimed: The atmospheric details could only be revealed by using special ultraviolet filters, filters that were used for photos taken by the NASA Mariner 10 spacecraft in 1974. In fact, as shown by iden-

tical cloud formations, Meier's Venus photos are actually "out-of-focus copies of the Mariner 10 images, taken seventeen months before his alleged 'contact'" (pp. 235–237).

Similarly, analysis of Meier photographs of three lovely alien "cosmonauts"—Asket, Nera, and Semjase—show they were copied from a television screen, as were shots of a "cave-man" and an alleged outer-space photograph of the Horsehead Nebula (pp. 245–58).

"Alien" metal samples. Received during his 105th contact with the alien Semjase, Meier claims, were "four metal, one biological, and nine mineral and crystal specimens" that supposedly verified the Pleiadean visits. Although analysis of the metal samples repeatedly showed they were consistent with origin on Earth, one scientist claimed that the components were fused by a technology that could not be achieved on Earth. Alas, before the claim could be independently verified, the sample conveniently disappeared. It turned out that not only was the scientist

a *chemist* rather than *metallurgist*, but that he lacked a doctorate and even had a "demonstrable record of *fraud* in his experimental work, especially when it involved psychic research" (p. 284).

Other evidence. Additional evidence of Meier's claims has not fared well either, Korff reports. Hair from the lovely Semjase was forensically analyzed and found to be human, while the alleged "landing-tracks" on Meier's property turned out to be nothing more than early (apparently man-made) crop circles. As for the soil samples Korff surreptitiously obtained, there was "no discernible difference" between them and control samples obtained from nearby areas (pp. 299–300).

This summary of the evidence against Meier's claims is not intended to substitute for the detailed analyses Korff provides. Readers will be intrigued by the series of puzzles Meier's photos and other evidence represent, as well as educated by the Sherlockian manner in which Korff solves each in turn. □

NEW BOOKS

Book of the Damned. Charles Fort. James Brown Publishing, Fortean Times, 20 Paul Street, Frome, Somerset, BA11 1DX, UK. 1995. ISBN 1-870870-53-0. 310 pp. \$24.00, paper. The first scholarly revision since the first edition in 1919, of Fort's classic collection of unevaluated notes on strange phenomena, observations, and experiences. With extensive data corrections. Introduction by Rob Rickard, editor of *Fortean Times*.

Cosmic Relief: Honoring and Celebrating the Global Paradigm Shift. Connie L. Schmidt. Brockton Publishing, 8326 Southwest Freeway, Houston, TX 77074. 1995. ISBN 1-887918-01-9. 107 pp. \$18.95, paper. If you are seeking relief from the glut of New Age, wholistic lifestyle publications, this high-spirited spoof is for you. In fact, all skeptics will enjoy it. The author ("who does not teach weekend workshops and has never tried to sell cosmetics or herbs or cleaning products to anyone") uses sharp wit, humor-laced skepticism, and computer graphics to create text and ads we'd all like to see: "All the Latest Poop on Quartz Crystals and Your Colon." "Isn't It Time You

Considered a Career as an Incest Survivor?" "The Recovery Channel." "Alien Implant Problems?" "Single Personality Disorder." And so on. A welcome breath of fresh air.

Cult Archaeology and Creationism: Understanding Pseudoscientific Beliefs About the Past. An Expanded Edition. Edited by Francis B. Harrold and Raymond A. Eve. University of Iowa Press, Iowa City, Iowa, 1995. ISBN 0-87745-513-9. 204 pp. \$13.95, paper (also in hardcover). New edition of work first published in 1987 has a new chapter by the editors and Geertruida C. De Goede, "Cult Archaeology and Creationism in the 1990s and Beyond," summarizing what's been found since the first edition, and also a new chapter on Afrocentric creationism by Bernard Ortiz de Montellano.

Cult Rapture. Adam Parfrey. Feral House, P.O. Box 3466, Portland, OR 97208. 1995. ISBN 0-922915-22-9. 371 pp. \$14.95, paper. A journalistic collection delving into the "rapturously cultic experiences of groups you're going to wish you never heard of."

The common thread, according to the author, is how the "panic-stricken middle class escapes its apocalyptic nightmare." The opening chapter is on the Unarius cult. Several deal with militias.

Dinosaur in a Haystack: Reflections in Natural History. Stephen Jay Gould. Harmony Books, New York, 1995. ISBN 0-517-70393-9. 480 pp. \$25.00, hardcover. This is the seventh volume of Gould's continuing monthly *Natural History* essays, completing twenty years of superb intellectual contribution to the public understanding of evolutionary science by the modern master of the scientific essay. (He says he intends to continue writing them monthly until January 2001.) As always, the centering theme is evolution, with emphasis on issues in Darwinism and patterns in the recorded history of life. Or as Gould puts it, "The how and what of evolution's four-billion-year course on our planet." Filled with Gould's love of history, "not only of life itself but of science trying to understand life," and his joy at making links between past and present,