

might ask about us: What is wrong with human beings? Why have all the religious and philosophical attempts, from Plato to Judaism to Christianity, always failed to fundamentally restructure human life toward love and gentleness? Mannion concludes that aliens might consider humanity's fundamental flaw to be evident in the way we treat our newborn.

Humans slap the newborn, cut the umbilical cord, wrap infants in swaddling clothes, feed them from bottles, circumcise them, and do many other harmful, if not cruel, things to the newborn. Mannion develops the idea that the infant, reaching out to the world, is greeted with harshness—and often abuse and neglect—and then withdraws. This withdrawal may be at the root of our deep-seated social problems. He points out that humans interfere with the sexuality of the young in many ways. How is all of this related to UFOs? Through energy. Mannion reminds readers that Reich (as well as ancient philosophers) understood there to be one primordial, cosmic energy force that expresses itself through all living and nonliving things. It may be this primordial energy that aliens are studying in people.

Mannion notes that many abductees describe sexual experiments by the aliens and wonders if perhaps the aliens are drawn to this because they know of human sexual dysfunction and its consequences. He says, "There is ample evidence to link sexual pathology with a wide range of destructive and self-destructive behavior. Perhaps ET interest in human sexuality has more to do with this biological tragedy than we know" (pp. 295–296).

The book ends on a cautious note. Mannion neither puts forward answers nor charts a program for changing things to complete the mindshift. He simply points out that aliens may have come here for reasons that have nothing to do with humanity, much as the Europeans came to the Americas for reasons having nothing to do with the indigenous peoples. Aliens may not be (as Europeans were not) superior or godly, despite advanced technology. They may just be other life-forms, exploring creation in their own ways.

Mannion's final bit of advice is not fleshed out. Whatever the aliens are up to, he says, humans have a great need and an old one: to reconnect with the cosmos through unconditional love. The problem with this is that it gives the book a slightly mystical aura that the rest of the contents do not support or discuss. Nevertheless, Mannion's book is different in that it seeks to locate patterns in all the activity around UFOs in the last half a century, and this makes the book valuable.

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Cryptozoology A to Z: The Encyclopedia of Loch Monsters, Sasquatch, Chupacabras, and Other Authentic Mysteries of Nature by Loren Coleman and Jerome Clark. New York: Fireside/Simon & Schuster, 1999. 270 pp.

\$13.00, paperback. ISBN 0-684-85602-6. Illustrations and photographs. Bibliographical references.

Loren Coleman, who lives in Portland, Maine, has an undergraduate degree in anthropology-zoology and a graduate degree in psychiatric social work. He has been an instructor, assistant, and associate professor, as well as a research associate in various academic university settings since 1980. He authored, coauthored, or edited eight books, including *Suicide Clusters* and *The Field Guide to Bigfoot* (with Patrick Huyghe, as well as numerous articles on elusive animals. His coauthor Jerome Clark, a resident of Canby, Minnesota, is the author of several popular encyclopedias on the history of natural phenomena.

French scholar Bernard Heuvelmans, who is frequently referred to as the “father of Cryptozoology” (p. 105), has defined the field as “the scientific study of hidden animals, *i.e.*, of still unknown animal forms about which only testimonial and circumstantial evidence is available, or material evidence considered insufficient” (p. 75). The book contains over 120 entries on “cryptids” (as those enigmatic creatures are called) and includes more than 50 biographies of researchers, explorers, and authors as well as information on some organizations and periodicals in the field. Thus, the reader has a chance to learn about numerous purported mysterious animals—from the popular Abominable Snowman (also known as “Bigfoot” and “Yeti”) to the obscure “Zuiyomaru Monster,” which was reportedly found off the coast of New Zealand in 1977 but whose sighting disappointingly proved to be a decomposed shark. To summarize, the entries about the “cryptic” animals clearly fall into three categories: searched for and already discovered species (those that may be called “right” or “certain”), problematic and disputed (“undecided”), and those proven to be mistakes and hoaxes (“wrong” or erroneous).

Some may doubt whether the field of cryptozoology actually exists. On one hand, critics of the field frequently refer to unreliability of witnesses due to faults of human attention and memory. They argue that sightings of unexpected events, such as unknown or rare animal species, present considerable challenges to accurate perception, interpretation, and recall (*e.g.*, Hall, McFeaters, and Loftus, 1987), let alone deliberate hoaxes. On the other hand, some hitherto unknown species of animals have been discovered in this century, including the okapi (which is the centerpiece of the logo of International Society of Cryptozoology founded in 1982) in Congo, the giant panda in Tibet, and the latest *saola* (“forest goat” *Pseudoryx nghetinhensis*) in Vietnam’s Vu Quang Nature Reserve near the Laotian border. Thus, it is not surprising that the general public is more skeptical with regard to the disputed animals than trained professionals: While only 13% of average Americans believe in existence of Nessie (also known as the *Loch Ness monster*, a supposed inhabitant of Loch Ness lake in Scotland), nearly 40% of marine biologists give credence to the evidence that Nessies are real (Bauer, 1987, p. 70).

It is also true that many animals have become extinct over the last few hundred years as a result of ecological disruption (*e.g.*, deforestation) caused by

humans migrating to new environments or direct attempts to exterminate some species deemed to be “harmful.” An example is the thylacine (pp. 238–239), also known as *marsupial wolf* or *Tasmanian tiger* (*Thylacinus cynocephalus*)—a doglike carnivorous animal that was hunted to extinction in the early part of the 20th century. The last known living specimen died in captivity in 1936 in the Hobart Zoo in Australia. Persistent reports of sightings right down to the present offer hope that a few thylacines may still live in the wild. For example, a Park and Wildlife officer reported observing a thylacine in the Pyngana region of eastern Tasmania in January 1995. However, a follow-up search failed to find any trace of this animal.

The book would benefit from a more holistic interdisciplinary approach essential for research into anomalies—a more extensive discussion of alternative, including nonbiological, explanations for the nature of mysterious creatures. One plausible point of view is a psychological explanation briefly mentioned in the book under the entry “Goblin Universe” (p. 100), which touches upon potential “paranormal” (in the authors’ terminology) or rather archetypal origin of beliefs in legendary and mythological creatures. In this connection, one can remember Carl Jung’s (1964, p. 70) example of a 10-year-old girl who dreamed of “the evil animal”—a snakelike monster with many horns who kills and devours all other animals. According to Jung, such “archaic remnants” or “primordial images,” which are encountered in different cultures around the world, originate in the collective unconscious. Thus, the *Piasa*, a mythological creature found in legends of the Illinois—an Algonquian-speaking Indian tribe that concentrated along the Illinois River to the Mississippi River—and discussed in this volume (pp. 201–202) may fall into this category.

Another example of a nonbiological explanation not addressed in this book is related to such persistent type of disputed creatures as sea snakes or lake monsters, the most famous of which is the Loch Ness monster, or Nessie. Back in 1987, anomalies researcher James Westman suggested that the Loch Ness monster may represent a form of energy rather than a living creature and should thus be studied by physicists rather than biologists. It is also conceivable that at least some of such sightings may actually be due to standing wave phenomena such as soliton waves or little-known weather phenomena such as miniwaterspouts.

On the positive side, the book offers a multicultural perspective of the search for “cryptic” animals, including a discussion of Russian researcher Boris F. Porshnev’s theories regarding yet undiscovered primates such as *Almas* or *Almasty* (Abominable Snowman-like creature) whose giant footprints were reportedly found in Tien Shan mountains and in the Caucasus in the south of Russia. Beginning with the 1950s, these “relict hominoids” were studied by a formal commission of the Academy of Sciences of the USSR. I still remember debates on the subject at meetings of the Moscow Society of Naturalists in the early 1970s.

Although the field of cryptozoology is highly controversial, the book represents a useful and informative contribution to public knowledge of anomalies. A curious reader interested in the field will benefit from it—at least until a more scholarly encyclopedia on the subject is published. An easily readable style and extensive bibliography are particularly useful, even though there is no division between scholarly and popular publications, as are informative lists of museums, exhibitions, periodicals, and Web-sites.

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References

- Bauer, H. H. (1987). Society and scientific anomalies: Common knowledge about the Loch Ness monster. *Journal of Scientific Exploration*, 1(1), 51–74.
- Hall, D. F., McFeaters, S. J., & Loftus, E. F. (1987). Alterations in recollection of unusual and unexpected events. *Journal of Scientific Exploration*, 1(1), 3–10.
- Jung, C. G. (1964). *Man and his symbols*. Garden City, NY: Doubleday.
- Westman, J. (1987). Comments on bauer's "Loch Ness monster." *Journal of Scientific Exploration*, 1(2), 101.

Understanding Tomorrow's Mind edited by Larry Vandervert (a special issue of the *Journal of Mind and Behavior*, volume 18).

This special volume of the *Journal of Mind and Behavior* (spring and summer 1997 issues of volume 18) is devoted to papers relating chaos theory and quantum mechanics (QM) to psychology and the study of consciousness. The collection is titled "Understanding Tomorrow's Mind," and the implication is that further understanding of consciousness and the mind will require the use of tools such as the mathematics of chaos theory and the physics of QM. Although this is a fairly popular idea in some cognitive science circles (particularly in some corners of artificial intelligence and artificial life research), most work in psychology makes no connection with developments in the forefront of physics or mathematics. The claim that fundamental advances in these fields have anything to do with the study of behavior and consciousness is a bold one, because it is often thought that cognition arises at a much higher level and is controlled by principles far removed from the laws governing the bedrock of matter, within which mentality is embedded. This book presents an interesting sample of approaches that aim to make progress in cognitive research by using tools from fundamental physics and mathematics.

The volume presents a sample of applications of nonlinear and quantum modeling approaches for the dynamics underlying psychological phenomena. It starts with a brief preface and a set of guidelines for using this book as a teaching tool. This is a very useful inclusion; however, it would have been even more useful if it had included some references and pointers to areas of work specifically not included in this collection (more on that below).