

guilty not because he was found to be wrong, but because his work exposed dishonest science and awkward anomalies. This sort of behavior continues; in the cold fusion controversy a lot of bad language has been uttered and reputations smeared. Some Italian researchers felt strongly enough to go to court. They write, of the anti-cold-fusion Establishment:

"... the leaders of the scientific community don't want to do their homework and prove their point (either experimentally or theoretically). They simply dismiss everything that supports this new scientific development and, when cornered by fact and logic, they explode in a burst of insults, while, when required to give a proof of their charges (fraud like cold fusion should in the end be proven!), they appeal to the right of 'free press'" (Del Giudice & Preparata, 1996). Some people pay a high price for having ethical standards, as Brian Martin points out in his conclusion. There are lessons to be learned from these stories, he writes: most people are more obedient than necessary, even taking into consideration threats to career or character; it is hard to alter the behavior of an establishment that has become fixed over time (inertia itself is an impediment to change); but the hopeful part is that the lone individual, if determined and knowledgeable enough, can change the world.

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Reference

Del Giudice, Emilio and Preparata, Guilianio (1996). Jury still out on cold fusion? *Nature*, 381, 729.

Natural Grace by Matthew Fox and Rupert Sheldrake. New York: Doubleday, 1996, \$22.00 (c).

Subtitled "dialogues on creation, darkness, and the soul in spirituality and science," *Natural Grace* is a modern intellectual discourse on the connection between science and spirituality. While these discussions provide insight on spiritual questions, the reader is also exposed to related issues that need further scientific inquiry. Those rooted in a wide spiritual cosmology will probably find kindred spirits in Matthew Fox and Rupert Sheldrake, scientific skeptics may have difficulty accepting this forum.

Rupert Sheldrake says he was always curious about living things, developing an early interest in biology, but later found himself caught in the teachings of mechanistic biology where organisms are treated as machines. He felt a need for a more holistic approach that integrated direct experience and analysis of scientific data and turned to studying the history of science and philosophy to deepen his understanding of how the separatism of spirit and Nature became the modern scientific view of the world.

Matthew Fox found mysticism at an early age and was led to join the clergy as a Dominican. As a priest, he was involved in the feminist movement in its early days and later in the gay and lesbian liberation movement and, most recently, the ecological movement. He has worked closely with physicist Brian Swimme for the last fourteen years. Although he was a Catholic priest for thirty years, Fox's unorthodox viewpoint created enough turmoil for Church fathers that he was expelled from the order in 1993.

Fox and Shelldrake are dynamic thinkers. Their combined backgrounds in science, philosophy and spirituality offer enlivening viewpoints about life, grace, and spirit in Nature. Fox says that "the issue of grace lies at the heart of an ecological consciousness, for it presents the issue of how we envision our relationship to Nature.... The ecological crisis has its origin in a theology that separates Nature from grace; if we deny Nature its being graced, then it has no defense when people set out to destroy it for their own ends because it holds no intrinsic value on its own." In defining grace, Shelldrake says it is "a sense of connection, openness, blessedness. Openness and connection with what's around us." From this point of view grace cannot be separated from science or Nature, and has a valid place in a scientific discussion.

As an example, in discussing the light spectrum, Shelldrake provides us with a basic scientific overview, then correlates facts about the electromagnetic spectrum with the spiritual meaning of darkness and light. He makes an association between modern physics and the book of Genesis in that the primal creative acts involve the establishment of divisions between light and darkness. In modern physics we learn there was once a primal undifferentiated unity which then underwent a series of progressive differentiations through a splitting apart of polarities. Even the fields of Nature are supposed to originate from a primal unified field by a process called "spontaneous symmetry breaking."

In each section, Shelldrake is open to discussing his own experiences with spirit in Nature, while Matthew Fox offers his years of experience as a Dominican priest to expand the thought. Fox talks about the relationship between cosmos and psyche. He reminds us that in mystical tradition the Godhead is dark, not seen by its actions. It is all a great mystery. And certainly in every example, he provides a depth of understanding beyond the traditional religious teachings.

Shelldrake naturally includes his hypothesis of morphic resonance, here relating it to ritual. He begins by creating an historical context, acknowledging the modern clash regarding the scientific model of reality. On the one hand there are those grounded in the teachings of ancient Greece who believe there is an eternal, timeless reality governing the changing world we experience. The evolutionary cosmology says that over time everything changes and develops, the laws of Nature were not set in stone at the time of the Big Bang. Shelldrake's theory of morphic resonance is that "Nature has a kind of inherent memory rather than an eternal mathematical mind," that the regularities of Nature are habits rather than laws. Ritual, too, is based on events that occurred

in the past, crossing time and distance barriers between the current practitioner and the ancients. The presence of those who have performed the ritual in the past is felt in the present. Fox takes this idea a step further, defining liturgy, or ritual, as *celebration as education*. Through ritual, he says, we learn about the source of our existence and we experience an inner connectivity. We also learn not only about our past and present, but our future as well. Fox and Sheldrake both call for rituals that employ technology, "Electronic media, including TV screens, could, through their flickering, liquid light, tap into very ancient ritual morphic fields, while being thoroughly modern at the same time." In another sense, Sheldrake says that what scientists do already has a ritual dimension, "Scientists are like priests in an interesting sense insofar as they're reading the oracles of Nature."

In the end, the purpose of these discussions on *Natural Grace* is not to provide conclusive answers. Rather, it's a call for developing a new way of exploring the questions of the universe and then educating the public to this new world view. The separation of science and nature can be turned around by the modern scientist who reclaims the initial, emotional, perhaps even spiritual, sense of curiosity and wonder that drew him or her into a particular field. By remembering their personal journey, scientists can participate in ritual and explore the "meaning of ritual as memory" says Fox.

Much of what science has revealed about Nature has been left in a sterile state, insulated from the world of the spirit. With the riches of Nature that science has opened up come new opportunities for thanksgiving, for praise, and for wonder at the creativity underlying all things. In this fuller context the truth of the mind and the truth of the heart can come together. Effective praise depends on paying attention, and science makes available to us both a new image of the creative, evolving cosmos and an amazing wealth of detail through which our praise can be informed.

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Deceived **by the** Light, by Doug Groothuis. Eugene, Oregon: Harvest House, 1995, 203 pp. ISBN 1-56507-301-0.

As someone once remarked, the problem with America is that you can't tell the inmates from the ones walking around the streets. As an example, back in 1968 and thus long before diversity, multi-culturalism and PC were words which inspired conflict, I was attending an evening fireside talk by a US park ranger in one of our national parks. The park ranger spoke glowingly about how we (*i.e.*, middle-class whites) could learn much from the Indians — they became "Native Americans" only many years later — in the way of treating the land, respecting the elderly and so on. After the talk, some of us chatted with the speaker, expressing how much we agreed with what he had to say. One