

tive than their allopathic counterparts. The author does a reasonable job at presenting certain philosophical concepts, such as the *chakra* system and methods to attain stillness of mind, but the amount of useful information is overwhelmed by the author's style of painting subtle philosophies with an excessively broad brush.

In conclusion, anyone who has been to the New Age section of a bookstore has seen shelf after shelf of books that aim to be of the self-help variety, or, at least try to make people feel good about themselves. The book is competent in this regard, but does not include much in the way of information that cannot be found in dozens of other books of the same genre.

Craig Clayton
Shaolin Gung Fu Institute
P.O. Box 95745
Seattle, WA 98145
www.shaolin.com

Forbidden Knowledge: From Prometheus to Pornography by Roger Shattuck. New York: Harcourt Brace and Company, 1996, 369 pp., \$14.00, (p). ISBN 0-15-600551-4.

Is more necessarily better? That, in the simplest terms possible, is the theme that Roger Shattuck explores in this book. Shattuck is a University Professor of Modern Languages and Literature at Boston University and winner of the National Book Award for Marcel Proust. Writing in a lucid, learned, and dense style, he approaches the delicate subject of setting limits in modern society, specifically in relation to the vastly different domains of scientific research and pornography.

This book contains a careful, balanced, and detailed presentation of many scientific and literary themes. In a brief review, I can only give the barest sketch of some of the issues and ideas he discusses. Such controversial and difficult concepts deserve the extensive attention that Shattuck gives; there is little that I consider extraneous in this intricately woven book. He writes gracefully, and extremely well; in places his writing is as thick and rich as a slice of cake from an elegant bakery.

Shattuck does not footnote, although he often does cite sources in the text; he also offers an extensive bibliography. Likewise, there is a decent index and a detailed Table of Contents. While having read many of the literary works Shattuck discusses would enrich a reader's experience of the book, it is certainly not necessary to its understanding or appreciation. Beginning in his home arena of literature, Shattuck uses the five chapters of Part One, entitled "Literary Narratives," to artfully examine many of the stories that have shaped our modern approaches to knowledge, freedom and restraint: Prometheus's theft of fire (read "technology" or "knowledge") from Zeus which saved mankind but was followed by Zeus's retaliatory gift of Pandora;

Adam and Eve's succumbing to the temptation to eat of the fruit of the Tree of Knowledge and the subsequent loss of paradise; and John Milton's treatment of the Adam and Eve story, which includes elements of the concept of a "Fortunate Fall." In the chapter entitled "Faust and Frankenstein," Shattuck looks at the "principle of excess" from the very different perspectives of J. W. von Goethe and Mary Shelley. In another chapter, with the delicacy and precision of an expert, he carefully (and lovingly) dissects the writings of Emily Dickinson and the lesser known, but to Shattuck "significant [and] enthralling" French novel *La Princesse de Clèves* by Marie-Madeleine de La Fayette. He moves on to Melville's *Billy Budd* and Camus' *The Stranger*, coaxing from all these tales profound and disturbing themes of freedom, curiosity, hubris, indulgence, voluntary abstinence, empathy, and justice, all threads woven into the theme of forbidden knowledge. These stories provide a network of literary "thought experiments" which stir up for Shattuck, and for the reader, the difficult themes he will tussle with on a more concrete level in Part Two, "Case Histories." I suppose it is not surprising (given his background), that at times in Part One he gets lost in the depth of his analysis, perhaps forgetting that his audience is not comprised exclusively of literary academics.

Although non-literary types may grow impatient with the extensive treatment of these (and other) stories, I suspect that Shattuck purposefully approaches the formidable task of discussing the possibility of limits on knowledge *via* this back entrance, not only because he is so at home in the literary world, but because he understands that we can better deal with difficult questions initially at a distance (through a veil, he would say), before we try to tackle them in our own backyards. It is as if he builds the garden first and then places the house within it. The house without the garden looks austere and even ominous. Surrounded by centuries of literary masterpieces, one can enter through his carefully constructed garden to the house and not be immediately dismayed, overwhelmed, or alienated. And the house needs to be explored.

When Shattuck does get down to what some would say is the business of the book in Part Two, he continues to walk carefully and thoughtfully, examining many sides of each question, as he has in Part One. While discussing, *via* five concrete historical situations, the prospect for imposing some kind of limits on scientific research and on pornography, he continues to weave more stories into his narrative, again allowing the reader to step back periodically from the difficult and more immanent questions he is raising.

Chapter VI, "Knowledge Exploding: Science and Technology," will in all likelihood be the chapter of greatest interest to *JSE* readers. Shattuck begins this chapter with two starkly contrasting epigraphs: "In some sort of crude sense... the physicists have known sin" (J. Robert Oppenheimer, 1947), and "[The Human Genome Project] is the grail of human genetics... the ultimate answer to the commandment, 'Know thyself'" (Gilbert, 1986). He goes on to ask, "Does scientific research, backed by immense technological and political support, represent the ultimate *sin* of Western civilization, or is it the *grail* we

seek as our only remaining form of salvation?" (p. 174) This is perhaps the most drastic example of a technique he uses throughout the book — to look at the extremes of an issue, presumably in the hope of encouraging the reader to come to some middle ground.

Before going on to discuss the five examples from the history of science, Shattuck covers some territory that is immensely important to him in Section 2 of Chapter VI, which he has named "The Siren Song: Pure and Applied Science." In this section he discusses in detail Francis Bacon's brief essay, "The Sphinx." (The full text of this essay appears in Appendix III.) Bacon says the story of the Sphinx, the "monster combining many shapes in one" (p. 343) that devoured men who could not answer her riddles, was an "elegant... and wise [fable]... invented apparently in allusion to Science" (p. 344). Bacon continues:

Sphinx proposes to men a variety of hard questions and riddles which she received from the Muses. In these, while they remain with the Muses, there is probably no cruelty; for so long as the object of meditation and inquiry is merely to know, the understanding is not oppressed or straightened by it, but is free to wander and expiate, and finds in the very uncertainty of conclusion and variety of choice a certain pleasure and delight; but when they pass from Muses to Sphinx, that is from contemplation to practice... then they begin to be painful and cruel. (p. 344–345)

The great dilemma for Shattuck is that the "dreaming human head [of the Sphinx] cannot be separated from the lion's menacing body" (p. 179). "Shall we ever be able to draw a firm line — or even a rough line — between discovery and application?" he asks (p. 180).

In order to illustrate this difficulty in separating pure and applied science, Shattuck proposes five examples, "considerations that could justify imposing constraints on scientific inquiry": practical, prudential, legal, moral, and a combination of these. He does this by describing an actual historical situation for each of the five, "in the order of increasing complexity" (p. 185). Note the careful language here ("considerations," "could justify") as throughout the book. Shattuck is not a reactionary opponent of science, pure or applied. He is a thoughtful and well-versed student of history, both literary and material, who appreciates the benefits science has brought us, who sees with sadness the

limitations of human nature, and who wonders if we — as a race — can manage Pandora's gift box, whose lid we have already lifted.

Practicality is the first consideration Shattuck looks at, concluding simply that some ideas are too impractical (or, in our modern world, too expensive) to carry out.

Prudential considerations are illuminated by the story of early recombinant DNA (rDNA) research. In the early 1970s, some biologists became concerned that the recently developed techniques for DNA grafting, and for the containment of potentially dangerous rDNA organisms, were too primitive to justify

unregulated experimentation. Many discussions, articles, consultations, conferences and congressional hearings later, guidelines were drafted that were eventually found to be too restrictive, as the worst fears about the early research did not pan out. “The debate culminated in a flexible set of guidelines and the formulation of an oversight panel” (p. 195) that now seems fairly well balanced. But, as Shattuck points out, when the debate began *no one knew what would happen* in this new sphere of science. So it was prudent to step back a bit, even if that stepping back turned out to be initially excessive.

“The third category of circumstances that could justify constraints on scientific inquiry reaches beyond practical and prudential concerns in to the maze of law. Where, for example, does the march of science interfere with individual rights?” (p. 195). Shattuck examines a 1927 U. S. Supreme Court case in favor of compulsory sterilization of a “feeble-minded” woman and her daughter in which the decision was based on “half-baked science.”¹ The justices accepted the testimony of so-called experts without question, because of a prevailing positive attitude towards the “new science of eugenics” at the time. Shattuck admits we are generally more skeptical of expert testimony these days, but once again advises that we learn from history and move forward carefully in the legal arena when dealing with new areas of science such as gene therapy. “We should keep careful track of intellectual fashions in science, above all in our own time” (p. 210).

In the area of moral considerations, Shattuck chooses some of the Nazi “experiments” with eugenics to illustrate his point. “Reverence does not drive all scientists,” says Shattuck, regretfully (p. 203). Enough said.

In discussing the last example of a situation involving science that might warrant some restraint, Shattuck takes a careful look at the Human Genome Project. He willingly admits possible benefits to the project, but wonders if we have been deluded by false hopes and possibly questionable science. He quotes molecular biologist Robert Sinsheimer: “for the first time in all time, a living creature understands its origins and can undertake to design its future” (p. 216). Because we might someday learn the alphabet, does it mean we will ever be able to compose a beautiful and articulate poem? If the poems are human lives, can we just crumple up the paper and throw away the first five drafts? These are difficult questions to ask and answer because the potential benefits of some gene research are great. But if we do not ask them now, when will we ask them? Shattuck says “our very accomplishments can distract us from seeing accompanying perils” (p. 311).

He recommends a prudent and thoughtful approach to these issues but the only practical solution he offers is to institute a sort of Hippocratic Oath for scientists, saying that unlike physicians, scientists have “no such symbolic recognition of special powers entailing corresponding duties.... To make this

¹“No sound test or examination ever established that mother or daughter was imbecible or feeble-minded. Furthermore, the contention that the feeble-minded inevitably breed feeble-minded offspring — the premise on which the whole case rested — arose from unreliable scientific information” (p. 198).

proposal, I have had to overcome a deep-seated revulsion from anything that resembles the loyalty oaths required of college professors by some states in the 1950s and 1960s" (p. 223). He realizes that taking an oath will not change human nature, but it could set some parameters and challenge scientists and laypersons alike to scrutinize scientific practice and decisions more carefully.

For scientists whose research interests have often been relegated by their peers to the back burners of acceptability, the concepts of restricting science in any way may seem anathema, or even absurd. On the other hand, perhaps SSE members, having experienced the vicissitudes of scientific "fashion" and the unscientific way in which certain topics are deemed appropriate for scholarly study, may realize the need for more open discussion of prudence in the domain of science.

In his chapter entitled "The Divine Marquis," Shattuck devotes 70 pages to a discussion of the life and literary works of the Marquis de Sade and of how to deal with his work in our present culture. It is at times a gruesome account, given that Shattuck looks at the entire opus of de Sade's writing and not selected "philosophic" excerpts. Towards the end of the chapter Shattuck says, "I have argued that we should not burn Sade, and that we should not glorify him as a new classic of revolutionary moral liberation" (p. 289). (Both have been done.) He refers to a concept that he laces throughout the narrative, which finds its best expression in one of the three epigraphs for the book, "Forbete us thyng, and that desiren we," from *The Wife of Bath's Tale* by Chaucer. "The divine marquis represents forbidden knowledge that we may not forbid. Consequently, we should label his writings carefully: potential poison, polluting to our moral and intellectual environment" (p. 299).

In the Foreword to the book Shattuck mentions a personal experience with an application of atomic research that shaped his views of the "slippery slope" from pure to applied science for many years to come, and that apparently helped bring this book in to being:

The two atomic bombs dropped on Japan in August 1945 probably saved my life.... I had been assigned to a bomb wing in Okinawa that was staging to go ashore in the first wave of landing craft invading mainland Japan.... We were told very clearly to expect more than 50% casualties. Then early one evening, the PA system hanging over the pyramidal tents came to life with a mysterious message about a "new kind of bomb" and a city named Hiroshima. Someone in the camp yelled, "The war's over."

A few weeks later... I flew a B-25 up the Inland Sea of Japan to have a look at Hiroshima. From a thousand feet in the shattering silence of the cockpit, we could see a flattened smoldering city. We did not know the number and nature of the casualties, or the intensity of the radiation we were foolishly flying through....

Marked by that series of events, I have lived out my biblical portion of years with a warning light constantly flashing in my peripheral vision. (pp. 8-9).

Why are we so reluctant even to consider the possibility of restraint? We have already removed the lid from the atomic box. We are removing the lid

from the genetic one as well. Shattuck asks, "Because we can do it, should we?"

I will close with the same technique Shattuck uses to introduce the book and several of the chapters in Part Two, offering two apparently contradictory quotations that help define the nature of the dilemma of forbidding knowledge. The first is a quotation from Hegel that Shattuck uses in his concluding chapter; the second is his own words.

To seek to know before we know is as absurd as the wise resolution of Scholasticus not to venture into the water until he had learned to swim (p. 322).

The time has come to think as intently about limits as about liberation (p. 326).

Dawn Elizabeth Hunt

*Division of Personality Studies
Box 152, Health Sciences Center
University of Virginia
Charlottesville, VA 22908*

Miracles of Mind: Exploring Non-Local Consciousness and Spiritual Healing by Russell Targ and Jane Katra. Foreword by Larry Dossey, M.D. 325 pages. Illustrations and photographs. Bibliographical references and index. New World Library: New York, 1998. ISBN: 1-57731-070-5. \$24.95 hardcover.

"This book is about connecting to the universe and to each other through the use of our psychic abilities." Russell Targ and Jane Katra conveniently tell us in the first sentence of their first book together exactly what they intend.

All of Targ's books have been collaborations, and with this one, he seems to have found a truly congenial co-author. Although he is well-known in parapsychological circles, Jane Katra may not be. She describes herself in her jacket bio as holding "a doctorate in public health education and has been a spiritual healer for more than 20 years. She has taught nutrition and health classes at the University of Oregon, and Therapeutic Touch at Lane Community College."

They lay the groundwork for their presentation by spending the first half of the book presenting a good overview of the entire remote sensing field and its history, including references to the obscure Upton Sinclair work, described in *Mental Radio*. Principally, though, the focus is on the government sponsored studies at the Stanford Research Institute (SRI) parapsychology lab, conducted when Targ was a part of that team, and private work he has conducted subsequently. Much of this is well-known, not only from Targ's other co-authored books, *Mind Reach: Scientists Look at Psychic Abilities*, and *The Mind Race: Understanding and Using Psychic Abilities*, but from many other books and papers that have cited these often ground-breaking explorations. There is,