senses—gave way to the rigorous creativity of modern physics.

Boltzmann wasn't content with his accomplishment. Plagued by depression and still surrounded by doubters, he hanged himself at age 62. Though his fate may sound romantically tragic, his dyspeptic, neurotic manner keeps him from being a very sympathetic character. But the unfolding of his ideas, rendered so well by Lindley, makes for a very absorbing story.

-George Johnson

THE BOTANY OF DESIRE: A Plant's Eye View of the World. By Michael Pollan. Random House. 304 pp. \$24.95

In a common schoolbook image of evolution, all forms of life are represented by the forking branches of a vast tree. This scheme positions man and his fellow mammals far from their green cousins, the elms, algaes, and artichokes. Pollan, a contributor to the New York Times Magazine and the author of Second Nature (1991), shows how the evolutionary branches of man and plant have come to be intertwined, with complicated consequences for each. In a meditation by turns poetic, historical, and scientific, he traces the reciprocal strategies of the cultivator and the cultivated. If man has moved nature by domesticating certain plants, so nature has moved man, first by stimulating his desires, and then by evolving to gratify them.

Pollan takes four plants that he himself has grown—the apple, the tulip, marijuana, and the potato—and relates their social histories to the human desire each has been bred to satisfy: sweetness, beauty, intoxication, and, through manipulation of the potato's genetic code, control. He travels to central Ohio on a search for traces of John Chapman, known to schoolchildren as Johnny Appleseed; to Amsterdam, the center of the 17th-century Dutch tulip craze and, more recently, the city where pothead botanists have developed highly fortified marijuana; and to the St. Louis headquarters of Monsanto, where the potato's genes have been redesigned and licensed as intellectual property.

In Second Nature, Pollan used Thoreau to illuminate the tension between wildness and cultivation. Here he summons Nietzsche, particularly the philosopher's idea of the dual tendencies of the Greek spirit: the apollonian will toward form, restraint, and balance, and the dionysian will toward dissolution and ecstasy. Pollan describes both gardening and hybridization as contests between these forces.

Although their cultivation may be apollonian, the recombinant potato, supercannabis, applejack, and the rare tulip are intended to satisfy the dionysian appetite for pleasure. The suggestion of sensual excess naturally galvanizes an opposition. Against these hybrids has stood a mixed group of moralists, Calvinists, organic farmers, temperance groups, antidrug forces, the cautious, and the just plain frightened. The author treats this response with a light touch, as a form of evolution in its own right.

Pollan writes crystalline prose. He brings a generous curiosity to the scientists and plantsmen he interviews, some of them odd specimens themselves. In the end, though, the main character in his meditation may be the human imagination, which is capable of regarding the apple (to choose but one example) as cash crop, childhood memory, Eve's undoing, national emblem, gene bank, and consummate companion to cheddar.

-Christopher Hewat

Religion & Philosophy

JOHN UPDIKE AND RELIGION: The Sense of the Sacred and the Motions of Grace.

Edited by James Yerkes. Eerdmans. 290 pp. \$24

Preachers tend to read narrative (if at all) as fable or allegory. The intricate tissue of experiential detail vital to fiction is apt to be set aside as extrinsic to meaning and treated as an attractive but disposable container for the hard nugget of moral instruction within. Happily, no such tendency mars this collection of 15 essays by religious and literary scholars. The contributors all take fiction seriously enough to engage it on its own terms. They are able to confront irresolvable tensions without forcing resolution or resorting to what Updike calls "verdict" and "directive."

Prefacing the collection is Updike's 1997 speech upon receiving the Campion Medal, awarded by the Catholic Book Club. After briefly questioning his eligibility, the author recalls his affiliation with three Protestant denominations (Lutheran, Congregational, and Episcopal) and the comfort and courage his Christian faith has given him: "For it tells us that truth is holy, and truth-telling a noble and useful profession; that the reality around us is created and worth celebrating; that men and women are radically imperfect and radically valuable."

Updike notes that his first novel carried an epigraph from the Gospel of Luke, the second from Pascal, the third from Karl Barth, and the fifth from Paul Tillich. His character Harry Angstrom, he says, represents a Kierkegaardian figure: "man in a state of fear and trembling, separated from God, haunted by dread, twisted by the conflicting demands of his animal biology and human intelligence, of the social contract and the inner imperatives, condemned as if by otherworldly origins to perpetual restlessness."

Updike, by his own admission, is not a "Christian writer." What he has said of Harry Angstrom seems to apply to him as well: "Harry has no taste for the dark, tangled, visceral aspect of Christianity, the *going through* quality of it, the passage *into* death and suffering that redeems and inverts these things, like an umbrella blowing inside out." And, while gratefully receiving the Campion Award, the novelist asked "to be absolved from any duty to provide orthodox morals and consolations in my fiction."

In the thought-provoking essays that follow the Campion speech, scholars explore the influence on Updike of Pascal, Kierkegaard, Barth, and others, along with the impress of Updike's early Lutheranism. Most memorable, on the literary side, is Charles Berryman's essay "Faith or Fiction," which argues that the dark, tragic visions of the great naysayers Melville and Hawthorne cut closer to the nerve of living faith than do the muted affirmations of Updike.

A minor complaint: This collection suffers from an excess of civility; more dissent would have been bracing. Critics as astute as Alfred Kazin have praised Updike's dazzling prose while questioning the depth of his work. The charge of "moral passivity" has been laid upon Updike's writing more than once. His lavish depictions of sexual exploits — ostensibly a sort of hymning to the goodness of the created world — might also be viewed as evidence of the author's captivity to the mores of contemporary secular culture. These essays duly note and answer such critical comments, but why not let a few of the critics speak for themselves? Surely the case made here for the authenticity of Updike's religious search is strong enough, sufficiently supple and undoctrinaire, to permit the unconvinced their full voice.

—А. С. Мојтаваі

HUMAN NATURE AFTER DARWIN: A Philosophical Introduction. By Janet Radcliffe Richards. Routledge. 336 pp. \$65

Richards, author of the much admired The Skeptical Feminist (1980), takes a philosophical approach to the perennial wars over Darwinism, with an emphasis on the bitter hostilities now being fought over sociobiology (and its equivalents under other, and safer, names, such as evolutionary psychology). The book, which grew out of her university teaching, uses modern Darwinism as a heuristic for identifying and defining the main subdisciplines of philosophy, and as object material for teaching the elementary operations of logic. The argument is supported, as in any good course of study, with practical exercises-and with answers thereto. These etudes are fascinating in their own right. Thus, what must have begun as a generous handout for a college-level course emerges as a lucid treatment of one of the most important intellectual (and political) conflicts of our time.

Human Nature after Darwin begins, as it should, with a short, reliable summary of the pertinent science. This is also the author's opportunity to introduce some key concepts from the epistemology and philosophy of science. She follows with a taxonomy of influential commentary on Darwinian evolution and its implications, ranging from the radical, reductionist evolutionary claims, through the various categories of skepticism, and finally to the outright rejection of evolutionary biology, and hence of