

ATHEIST UNIVERSE

The Thinking Person's Answer to
Christian Fundamentalism

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Foreword: Paper Cut Stigmata

by Dorion Sagan

When I got a paper cut, slicing my thumb while reading the uncorrected proofs of this edition of *Atheist Universe*, I thought it might be a sign—not as dramatic, perhaps, as being struck by a lightning bolt in a sensitive part of the anatomy during an extremely arduous act of premarital lovemaking, but a sign nevertheless.

Creationists are funny. They want to be taken seriously as scientific and have their or their comrades' writings taught as science to our children in schools. But their attitude is unscientific. Rather than engaging in open-minded investigation to figure out how things are done, at the first glimmer of mystery they throw up their hands and say it is beyond science. This is like not knowing how a magic trick is done and thinking no one else can know, either. We can give up trying to understand because God—who in their view is like a 2000-year-old petty Middle Eastern tyrant, quick to anger and condemn to the eternal prison of Hell those who don't obey Him—must have done it. As soon as they (to *sound* scientific) ascribe the phenomenon to irreducible complexity, Intelligent Design, the Flying Spaghetti Monster,¹ or something else, they have abandoned the search. Needless to say, suggesting

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something is beyond science evinces neither the spirit of entrepreneurial inquiry and American ingenuity nor is it, in any way, shape or form, science. Science does not stop at some artificial limit of inquiry. It continues on. It, to borrow an apposite religious term, perseveres. Creation "science" and Intelligent Design theory do not persevere. They throw in the towel.

Science, in the words of quantum physicist David Bohm, is about finding the truth *whether we like it or not*. Apparently some fundamentalists are not comfortable with the truth—so much so that they have gone undercover, pretending to be scientists, except that (as David Mills shows here) they invent facts and contradict themselves to arrive at their preconceived conclusions.

One can hardly underestimate the power of religious fundamentalism. Nor is it limited to Christian fundamentalism. As shown by the recent Islamic example of suicidal terrorists attempting to reap their reward of 72 dark-eyed menstruation-, urination- and defecation-free hours, each more beautiful than any combination of earthly sexpots, the unlikelihood of a belief does not lessen its power. Not if it appeals to what we wish or fear to be true. A God who *commands* that you love Him (does this sound like true love?) and threatens you with eternal torture in Hell (no matter what good works you might have done) if you don't believe in Him may be an extremely effective transgenerational ideological scare tactic. But that doesn't make it true. As Mills shows in this remarkably clear text—which should be taught in schools—the founders of the United States were not fundamentalists. Indeed, the phrase "under God" in the Pledge of Allegiance and the words "In God We Trust" on U.S. currency were only added during the fear-laden Cold War 1950s.

Fundamentalism—whether Christian, Islamic or some other distinct vintage—is an atavistic human thought structure. It is, however, quite natural. When threatened, we revert to old patterns that aid group survival—never mind the epistemological taint nor the abdication of an honest search for truth. The truth

may set you free but societies require obedience, hierarchy and cohesion—ergo the paradox that the wheels of survival, especially during times of duress, are greased more readily by easy lies than hard truths. In terms of the scientific quest for human origins and those of life, the religious answer that God did it resembles the conclusion of a corrupt police official who frames a suspect without looking at old, let alone new, clues. When you look at creationism or Intelligent Design theory in this way—as pretend science involved in a dishonest investigation—you see it revealed in all the ultraviolet glare of its own petty offices. As David Mills shows, it's not a pretty picture.

All of which is a shame, because there is no greater tonic for true spirituality than science itself. The word "religion" comes from Latin *religare* for re-linking. Ironically, such re-linking occurs most effortlessly and profoundly when backed up by the realities of science rather than the fantasies of religion. For example, when Nicolaus Copernicus showed that Earth was not at the center of the solar system, he provided part of the process that gave us cosmic passports and citizenship to the galaxy—passports which have already been stamped with men on the Moon, and machines on Venus, Mars and photographing Earth from space. Friedrich Wohler, the chemist who found that substances in urine were related to substances outside the body, deflated the notion that life was made of some special and magical stuff. But his revelation of life's ordinary nature helped set the stage for understanding the role of DNA, for describing life as a complex chemical phenomenon. Our connection to the universe may be grounds for religious divorce but it is also a platform for spiritual renewal. We can confront reality *and* appreciate it; we can have our cake and eat it too.

So, too, the discoveries by astrophysicists of hydrogen, carbon and other chemical elements in and around the stars shows that the ingredients of life exist throughout the universe and may be present in extraterrestrials who have lessons to teach us far beyond anything we have yet learned. Each scientific realization

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is, in other words, the occasion for reflection on our connectedness as well as our commonness.

Montana scientist Eric D. Schneider and I argue that not only is the *stuff* of our bodies common, but even the *process* of life as a complex energy-based system is shared. "I am as pure as driven slush," quipped Alabama socialite Tallulah Bankhead. So are we: technological humans, and all life forms, are part of a class of three-dimensional complex systems that naturally cycle matter in areas of energetic flux. Such naturally complex systems include convection cells, cycling storm systems (e.g., hurricanes), and autocatalytic chemical reactions such as chemical clocks.² All these systems, including life, not only obey the second law of thermodynamics, but disperse energy more effectively—more quickly, more sustainably or both—than would be the case without them. That is their natural function. Complex systems arise in nature "to" disperse energy or produce entropy. Thus, we argue that life's physical purpose as a process—to disperse energy but to do so more effectively than would be the case without it—has been found. Far from violating the second law (as creationists wrongly claim), life is one of its most effective manifestations.

Life's measurable function has been detected by weather satellites. This natural function is to reduce the long wave radiation gradient between Earth and sun, thereby dispersing energy in accord with the second law. Moreover, life is not random but displays direction over evolutionary time: There has been, since life's inception, an increase in the kinds of life and number of species, an increase in the amount of energy stored by life and deployed in its operations, an increase in life's areal extent, an increase in the efficiency with which energy is used, an increase in cell types, an increase in overall intelligence and sensitivity, and an increase in the number of chemical elements involved, either structurally or peripherally, with metabolizing, living beings. These evolutionary increases, while dependent upon gene-based reproduction and natural selection, reflect the growth of the massive second law-based baby blue biosphere, so striking when we look at it

from space. Evolution (and here the religionists are right in their critique of neo-Darwinism) is not random but has a direction. However, this direction is not that of a willful deity; rather, it is the natural direction of spreading, naturally complex, entropy-fomenting systems. And again our cosmic humiliation or debasement is the occasion for a moment of cognitive uplift or expansion. We are part of a cosmic system of energy degradation.

Science's Copernican centrifugations do not seem to rule out religion but they do seem to call for the sort of impersonal God discussed by Einstein and Spinoza—a "God" "who" includes all of nature and no doubt much else besides our cosmically puny and all-too-human minds. As geneticist J. B. S. Haldane famously remarked, "The universe is not only queerer than we suppose, it is queerer than we can suppose." Science, religion and philosophy come together in recommending a humility proportional to our ignorance. "Only two things are infinite," said Einstein, "the universe and human stupidity."

Spinoza's God was an entity partially contiguous with nature, a deity that did not interfere in time and therefore did not perform miracles or tamper with creation via divine intervention. His was an impersonal God as eternal as the laws of nature. Such a God, which has lost all traces of the taste for punishment and anger management problems of the Great Steroidally Poisoned Despot in the Sky, accords with science, with nature and with the intellectual legroom to accommodate our ignorance. Spinoza's is a possible God. Spinoza, though a great advocate of freedom of the press and freedom to worship (his *Theologico-Political Treatise* is said to have influenced the United States' founding fathers), did not believe in free will. He thought it was an illusion, the result of our parochial ignorance of the higher state of affairs—one described by the eternal laws of nature, one outside of time, one not open to divine intervention. Spinoza argued for the deterministic world Einstein defended in his letter to Max Born when he wrote, "He [God] does not play dice." Freedom for Spinoza was equivalent more to the growth of knowledge than the real exercise of free

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choice. As Mills points out, the men who started this country were deists, not fundamentalists: their god, insofar as they had one, was on the side of science and nature, and not a supernatural force operating beyond nature with jealousy jags, temper tantrums and afterlife ultimatums. The argument for atheism is the same as the argument for monotheism except there's one fewer god. This brings to mind Alexander Hamilton's reputed response to Ben Franklin's apparently absurd suggestion that each session of the Constitutional Convention be opened with a prayer: "No, we don't need any foreign aid."

Postscript

Miraculously my paper cut is almost healed, a natural process that reminds me of a joke. A muttering man of religious bent, late for an assignation, says aloud: "Jesus, if you'll only find me a parking space I swear to God that I'll give up the women and the Irish whiskey for the rest of my life." Sure enough, a parking space appears, and he turns in. "Never mind, I found one myself."

To conclude, I am delighted to have been asked by Mr. Mills to write the Foreword to his fine book. With impeccable logic, intellectual bravery and professional clarity Mills points the way past religious prejudice to a far more believable—and ultimately enchanting—view of ourselves and the world.

Introduction: Is This Book an Outrage?

Winston Churchill once observed that "Everyone is in favor of free speech. Hardly a day passes without its virtues being extolled. But some people's idea of free speech is that they are free to say what they like, but if anyone else says anything back, that is an outrage."

Most people will consider this book to be an outrage. This book strikes directly at what is, for many people, their most private and deeply held convictions: their beliefs about God, the Bible, and life-after-death. The old adage warns us that "If we want to keep our friends, we should never discuss politics or religion." We take offense. We resent those who tell us that our shoes need polishing or that our clothes are wrinkled, much less that our most sacred beliefs are, in the end, a complete fiction. Whether our critics are right or wrong, we simply don't want to hear about it. We craft rationalizations for clinging to our current set of beliefs. We don't want to stray beyond our familiar zone of comfort.

Privately, most people do entertain doubts about whether science and Scripture truly agree with each other. Religious leaders *claim* that the Bible and science harmonize completely. Scientists, not wanting to rock the boat and upset their audience, rarely make a deliberate, concentrated effort to point out disparities between

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their laboratory findings and the "truth" as revealed in the Word of God. The result is that religious belief is inculcated into children long before they are capable of independently scrutinizing their parents' mystical assertions. The children become believers for life. When, as adults, something appears to contradict the religious beliefs we adopted as toddlers, we feel a "cognitive dissonance" and fear that something immoral is impinging itself upon us unwanted. In the final analysis, much religious belief is sustained by tarring the nonbeliever as a person without a conscience, having no valid standard for a workable system of ethics.

To millions of churchgoers, the terms "ethical conduct" and "Christian conduct" are synonymous and interchangeable. A "Christian act" is by definition an "ethical act." And an "immoral deed" is necessarily "un-Christian." The logical problem posed by these definitions, however, is that non-Christians—be they Jews, Muslims, Hindus, Buddhists or atheists—must necessarily be perceived as unethical—or at least less ethical—when compared to "true" Christians, simply because they hold differing religious beliefs. For if *your* beliefs are absolutely, positively true and "ordained of God," then anyone who disagrees with you is absolutely, positively wrong and is a damnable tool of Satan. Such "thinking" leads to religious bigotry and prejudice—and to Holy War. So, perhaps, we should think twice before introducing our children to such a biased and discriminatory "ethical" system—a system that admittedly promises heavenly rewards for faith and proper religious beliefs, rather than for real-world ethical treatment of others.

For example, a man could theoretically kill hundreds of innocent people, rob fifty banks, poison the drinking water of an entire region, or even start a world war. But if this man, during his last few seconds of life, sincerely repents of his sins and "accepts Jesus into his heart," he will be taken to Heaven and rewarded eternally. By contrast, a woman can sacrificially devote her entire life to charitable work and to generously helping disadvantaged children throughout the world. But if she neglects to recognize

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the existence of a supernatural Power, then she will be barbecued forever in the pits of Hell, according to Christian doctrine.

Christianity, therefore, defines ethics primarily in terms of an individual's religious beliefs (which affect no one else) rather than in terms of unselfish conduct toward others. Martin Luther King, Jr., taught us to judge individuals, not by the color of their skin, but by the content of their character. Many Christian Fundamentalists, however, judge individuals, not by the content of their character, but by the color of their religious beliefs. If your opinions on religion disagree with those of the Fundamentalists, they will for that reason declare your character to be bankrupt. Moreover, Fundamentalists sincerely believe that, because of your "bankrupt, un-Christian character," you are more likely (than the Fundamentalists) to commit immoral deeds. In other words, "true" Christians are necessarily more ethical than non-Christians. Such religious bigotry is no less offensive than claiming that a man born African American or Chinese is for that reason more likely to commit immoralities. So, while masquerading as a fountain of ethical virtue and love, Christian Fundamentalism instead teaches an unhealthy (and unethical) religious prejudice and hostility toward individuals of diverse opinion and background.

Politically active TV evangelists, like Jerry Falwell and Pat Robertson, define "ethical conduct" to mean that you support and campaign for the most ultra-conservative right-wing extremist on the ballot. To be "moral," you must also oppose gay rights, oppose affirmative action, oppose gun control, oppose stem-cell research, oppose doctor-assisted suicide, be violently anti-abortion, loathe the United Nations, despise Bill Clinton, Hillary Clinton, and Jimmy Carter, and believe that men should rule over women within the family. If you deviate from these hallowed beliefs, then you will burn eternally in the fires of Hell. Personally, it is difficult for me to fathom how we derive any true lessons on ethics from these politically inspired sermons. The only message that children

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are likely to absorb is one of intolerance and hatred of people with opposing viewpoints.

As I type these words into my computer in 2006, we have a conservative Bible-believing President in the White House, a conservative Senate, a conservative House of Representatives, and seven out of nine Justices on the U.S. Supreme Court appointed by conservative administrations (with additional High Court appointments imminent). FOX News, MSNBC and CNN are admittedly conservative in their news coverage or shifting soon to conservative coverage. The radio airwaves are absolutely dominated by insufferable, loud-mouthed, hypocritical right-wing talk show hosts whose methods of debate are to obnoxiously shout down the opposition and to cloak themselves in the mantle of religion, patriotism on the cheap, and holier-than-thou snobbery. Yet these same conservatives sincerely perceive themselves as a meek and unfairly persecuted minority who never get to express their humble opinions, since everything is supposedly under the control of liberals and atheists.

I'll let you render judgment about who actually receives more air time: those who espouse a belief in God, or those who are avowed atheists. While filling the airwaves and print media every day with stories promoting religious belief, some media outlets will literally go for decades without interviewing even one clearly identified atheist spokesperson for an opposing viewpoint. The news media are afraid to offend their audience and therefore abandon any pretense of objectivity when covering religion. The Christian conservative community will not tolerate any expression of opinion but their own.

Bill Bennett, conservative author of *The Book of Virtues* and *The Children's Book of Virtues*, invariably scowls with contempt and disgust whenever someone takes issue with his political or religious views. Perhaps Bennett's face was permanently frozen into a sour grimace by all his years of virtuous chain smoking and by his virtuous high-stakes gambling losses in Las Vegas.

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Talk-radio icon Rush Limbaugh, while demanding long prison sentences for all drug traffickers, was himself purchasing and ingesting each day enough illegal narcotics to euthanize a dozen African hippos.

Old-fashioned family-values conservative Bill O'Reilly cruelly lambasted any moderate whose sexual ethics differed from those of traditional Christianity. Yet, unknown to O'Reilly (and his wife), his female TV producer kept audio recordings of the moralizing celebrity making lewd and unwanted sexual advances toward her, demanding phone sex, fantasizing about threesomes and vibrators and, finally, masturbating over the phone into her startled ear.

In late 2003, right-wing commentator Ann Coulter published a book titled *Treason*, which openly accuses all liberal thinkers of being criminals, since treason (of which all liberals are supposedly guilty) is a high crime. Coulter's venomous, hate-filled books are quite typical, though, of how the Christian right views ethics. If you agree with them on politics and religion, then you're a patriotic American bound for Heaven. If you disagree with them on politics or religion, then you're an unpatriotic criminal destined for Hell.

I myself have been publicly labeled a "spokesman for Satan," a "disgrace to human dignity," a "moron," a "shrimp head" and, my favorite, a "pitiful middle-aged man, embarrassed by his life-long unemployment, and frozen, emotionally and intellectually, in early adolescence." Whew! A critic of mine once wrote that, contrary to the diplomatic example of Dale Carnegie, my first book on atheism should have been titled *How to Lose Friends and Alienate People*. He was probably right, since most of my critics employed *ad hominem* attacks on me—and on my supposed lack of ethics—rather than pointing out any factual or logical errors within the text of what I'd written.

The *New York Times* published a poll (August 15, 2003) showing that "Americans believe, 58 percent to 40 percent, that it is necessary to believe in God to be moral." By contrast, only 13 percent of Europeans agree with the U.S. view. The same poll also

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revealed that "Americans are three times as likely to believe in the Virgin Birth of Jesus (83 percent) as in evolution (28 percent)."

So this naturally brings me, an atheist, to a relevant question: For whom is this book intended? Am I trying to convert the followers of Jerry Falwell and Pat Robertson and Bill Bennett and Rush Limbaugh and Bill O'Reilly and Ann Coulter? Does this book strive to make atheists out of the religious right-wingers on the radio talk shows? No. That's not the purpose. Nor, in my opinion, is it even possible to change the religious views of those who perceive themselves as ethically superior because they belong to the one "true" religion. Their ears and eyes and minds are closed forever. No amount of science or logic will make any difference to them. They know in their hearts that God is on their side, and that anyone who disagrees with them is evil.

Instead, this book is intended for the 40 percent of Americans who, according to the *New York Times* poll, do recognize that there are good people (and bad people) in all religions—and with no religion. This book is written for open-minded readers who are not afraid to learn—in fact, who are eager and fascinated to learn—about the many conflicts and controversies between science and the Christian Bible.

Many previous books have been published about science and religion; but most of them were written so as not to offend anyone and to leave the very false impression that science and Scripture coexist in perfect peace and harmony. That's how to sell the greatest number of books: try to please everybody by saying nothing offensive or specific. That's how the politicians do it too: win a popularity contest by avoiding the tough issues. Even purely secular science books that directly rebut the arguments of so-called Creation Science usually wimp out in the end, criticizing only the Genesis account of Creation, without going further to show that religion as a whole—any and all religion—is an unscientific mirage.

But this book will not avoid the tough issues. There is no information in this book that is not readily accessible in your local

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library. But at your library, this information is scattered about, sugarcoated, camouflaged, hidden away, and watered down just enough to guarantee that most readers do not appreciate that the material they've just read flatly contradicts and disproves a tenet of their own Christian religion. This book will put all the pieces together for you and clearly articulate why, in my opinion, all science and all logic indicate that we live in an Atheist Universe.

A study published in *Nature* (July 23, 1998) revealed that, of the membership of the prestigious National Academy of Sciences, only 7 percent of its leading scientists believed in a personal God (in any form) and even fewer in the religious theories of "Creation Science" or "Intelligent Design." The religious right's greatest success therefore has been in duping the news media and the general public into believing that there is a widespread and growing controversy raging among scientists over God's role in Nature. As we shall see, there is no scientific controversy at all over this bogus proposition. The "controversy" is entirely social and political.

For the most part, the chapters in this book are independent and self-contained. Many people who read books—and a sensitive group they are!—feel slightly guilty if they skip around from chapter to chapter in a disorganized way. When reading this book, you won't be disadvantaged by such hopscotching. If one chapter sounds most interesting to you, then dive into that chapter first, wherever its location in the book. Once you select a chapter to read, however, I might suggest that you do read it from the beginning, since there is usually a logical progression of ideas building and expanding throughout the individual chapters.

Chapter 1, "Interview with an Atheist," is a fun-filled give-and-take, in laymen's conversation, covering almost every aspect of atheism. This chapter actually represents the compilation of three separate interviews, with redundant material excised. Since these were broadcast interviews, the answers I provided were short and to the point. Not all facets of atheism, however, lend themselves to short answers. So the remainder of the book provides a meatier discussion than is presented in Chapter 1.

Chapter 2, "Origin of the Universe: Natural or Supernatural?" is certainly the most complex chapter in the book, due to the nature of the subject matter. If you can follow the material in this chapter—as I'm sure you can—the rest of the book should be easy, though it is *not* necessary to read Chapter 2 in order to enjoy and benefit from the chapters thereafter, which should be straightforward, pleasurable and self-explanatory when you arrive.

Before we begin, I'd like to offer a few brief comments on writing in general. Mortimer Adler, the former editor-in-chief of *Encyclopaedia Britannica*, stated many years ago that "writing should be clear without being plain, and elevated without being obscure." In the mid-1970s, I published a pamphlet that drew a reader response. Familiar with Adler's prescription for good writing, the respondent wrote, "Contrary to Mortimer Adler's suggestions, Mr. Mills, your writing was plain without being clear, and obscure without being elevated." I'm embarrassed to admit that my critic was correct in her assessment of the ill-fated pamphlet. From that point on, I realized that clarity—above all else—is what counts in writing. You may disagree with my message; but you, as the reader, shouldn't have to struggle to discern what that message is.

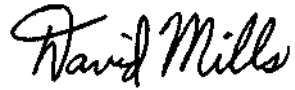
Another priceless tip for good writing was handed down to us by Thomas Jefferson himself. In a letter to John Adams, Jefferson wrote, "I apologize to you for the lengthiness of this letter, but I had no time for shortening it." Jefferson meant that a skillful writer uses as few words as possible to communicate his message. If I can successfully convey my thoughts to you using a 12-word sentence, then I am wasting your time—and watering down my message—by stretching the sentence to 13 words or to 30. Concise writing saves time and effort for the reader, but demands more time and effort of the writer, as Jefferson pointed out. In writing this book, I did devote the time necessary to shorten each sentence to its minimum length.

I will share a secret with you that is closely guarded by authors and publishers. Most books, you should know, contain a maximum of two or three meaningful ideas. Authors and publish-

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ers sell you mammoth volumes, however, by cleverly reiterating their two or three main ideas throughout the entirety of the book. Authors sometimes write as if they are being paid a penny a word. Yet, substantively, they say little. After reading this book, you may find yourself in complete disagreement with every word. You may be offended by some material. But you will not believe that this book had little to say.

Whenever you finish school, you usually forget immediately everything you ever learned about history, language, math and science. But when it comes to the more esoteric subjects—like philosophy and religion—you tend to remember just enough to screw you up forever. This book strives to liberate you from your holy ghosts and demons of the past.

A handwritten signature in black ink that reads "David Mills". The script is cursive and fluid, with the first letters of "David" and "Mills" being capitalized and prominent.

Huntington, West Virginia
June 2006