

Preface

This book is a collection of short articles on intelligent design and related topics. Several of the articles have been previously published, some are unpublished. A summary of the essays follows:

1. *In the Beginning*. This unpublished essay presents some of the evidence for the astonishing but now widely-accepted idea that the universe had a beginning, in a “big bang” about 15 billion years ago. Since there were no natural causes before Nature came into existence, all theories on origins now involve speculation as to the nature of the supernatural forces—intelligent or unintelligent—that brought our universe into existence.
2. *Design in the Laws of Nature*. This unpublished essay discusses some of the fortunate but improbable features of our universe which were required for the development of life. The “fine-tuning” of the fundamental constants of physics, and of the initial conditions of our universe, is based on widely-accepted and published scientific research, and has forced atheists to hypothesize the existence of many universes, with different constants and conditions,

to avoid the obvious explanation of design. The author notes that not only are the basic constants of physics fine-tuned, but so is the fundamental equation itself which underlies all of chemistry, the Schrödinger equation.

3. *A Mathematician's View of Evolution.* This essay was published in *The Mathematical Intelligencer* in 2000. In discussing Michael Behe's "irreducible complexity" arguments, the author draws an analogy between the development of life, as it appears in the fossil record ("most taxa appear abruptly... gaps among known orders, classes and phyla are systematic and almost always large"), and the 20-year "evolution" of his partial differential equation solving software. This software also evolved through the release of many new versions, each with obvious similarities to previous versions, but also with large gaps where major new features appeared and smaller gaps where minor new features appeared. Major, complex, evolutionary advances, involving new features, require the addition of many interrelated and interdependent pieces. Like major improvements to computer programs, they are not reducible to chains of tiny improvements.
4. *Postscript in 1985 Book.* This is an appendix to the author's 1985 Springer-Verlag book, *Analysis of a Finite Element Method: PDE/PROTRAN*, where the analogy between the evolution of life and the evolution of this software project is first discussed. The content is similar to the previous chapter, but is interesting in that it anticipates some of the current arguments for intelligent design (ID), 11 years

before publication of Behe's now-classic work, *Darwin's Black Box* [Behe 1996].

5. *Can 'Anything' Happen in an Open System?* This is based on a 2005 online article in the *American Spectator*. The origin and development of life seem to violate the second law of thermodynamics in a clear and spectacular way; however, such arguments are routinely dismissed by saying that the second law does not apply to open systems, such as the Earth. The author counters this idea with the tautology that "if an increase in order is extremely improbable when a system is closed, it is still extremely improbable when the system is open, unless something is entering which makes it *not* extremely improbable." In an appendix to a 2005 John Wiley mathematics text, reproduced in this chapter, the author looks at the usual equations for the second law as it applies to heat conduction and diffusion, and shows that they actually confirm this common sense interpretation, rather than the idea that *anything* can happen in an open system. The conclusion: "If we found evidence that DNA, auto parts, computer chips, and books entered through the Earth's atmosphere at some time in the past, then perhaps the appearance of humans, cars, computers, and encyclopedias on a previously barren planet could be explained without postulating a violation of the second law here. But if all we see entering is radiation and meteorite fragments, it seems clear that what is entering through the boundary cannot explain the increase in order observed here."

6. *My Failed Simulation.* This essay was published online in 2008 in *Human Events*. The strongest argument for ID is to clearly state the alternative view, which is that physics explains all of chemistry (probably true), chemistry explains all of biology, and biology completely explains the human mind; thus, physics alone explains the human mind. This thought experiment is designed to help those who dismiss ID as unscientific, to think about what it is they really believe.
7. *How Evolution Will Be Taught Someday.* Also published online in 2008 in *Human Events*, this essay is a short overview of what ID is all about. It was designed to present the basic ideas and arguments for ID in a very short summary form, for people who don't want to spend more than five minutes on the topic. One of the main points is that all of the "overwhelming evidence" for evolution is really of the form "this just looks like natural causes," and "we have found natural explanations for so many other phenomena," there is nothing to support the idea that natural selection can explain the complexity of life. In this essay, the author predicts that future biology texts will refer to evolution as a mysterious "natural" process, which scientists do not now understand, but still hope to understand some day.
8. *The Supernatural Element in Nature.* This unpublished essay looks at the history and philosophical consequences of quantum mechanics, which has blurred the distinction between what is natural and what is supernatural. When we try to reduce all

of reality to matter in motion, we find quite a surprise: there at the bottom, controlling the motion of matter, is the remarkable Schrödinger equation of quantum mechanics, which tells us that science is an entertaining and useful tool to help us understand our world, but it does not have all the answers, and never will.

9. *The Scientific Theory of Intelligent Design.* This unpublished essay looks at some of the issues raised in the debate as to whether or not intelligent design is really “science.” While much of the material in this chapter will be familiar to those acquainted with ID, there is some relatively new information here also, for example, a discussion of the “front-loading” being discovered in primitive animals, which is completely fatal for Darwinism.
- E. *Epilogue: Is God Really Good?* This essay, published in the Indian journal *AntiMatters* in 2008, looks at one of the most powerful theological arguments *against* ID, the problem of pain. While it may seem out of place in an otherwise scientific book, it is not an unrelated foray into theology, but is relevant to the rest of the book.