



# Book Reviews



## ENVIRONMENT

**CHRISTIAN ENVIRONMENTAL ETHICS: A Case Method Approach** by James B. Martin-Schramm and Robert L. Stivers. Maryknoll, NY: Orbis Books, 2003. 325 pages. Paperback; \$20.00. ISBN: 1570754993.

Martin-Schramm, associate professor of religion at Luther College, has served on the presidential Council on Sustainable Development. Stivers, professor of religion at Pacific Lutheran University, is coauthor of *Christian Ethics: A Case Study Approach*.

The publisher of this book, Orbis Books, seeks to publish works that enlighten the mind, nourish the spirit, and challenge the conscience. Orbis Books is the publishing arm of Maryknoll Fathers and Brothers. *Christian Environmental Ethics* is published under the Ecology and Justice Series banner, seeking to integrate an understanding of the Earth as an interconnected life system.

*Christian Environmental Ethics* contains twelve chapters divided into two parts: (1) foundations for ethical reflections; and (2) cases and commentaries. Each chapter concludes with notes, a list of further readings, and a list of web sites. Most of the book is dedicated to nine case studies on such critical topics as urban sprawl, habitat fragmentation, endangered species, nuclear waste, and genetic engineering. Specific problem locations are identified such as the 3,000 foot peak in Washington called Market Mountain, Snake River in Idaho and Washington, and Skull Valley in Utah.

Not only are problems discussed but solutions are suggested. Take, for example, the issue of environmental degradation. The authors suggest environmental degradation has five causes, the first two being too many people some of whom consume too much. The world's human population is more than six billion and increases 1.3% yearly. Birth rates in rich countries are roughly equal to death rates. In poor countries, while birth rates are going down, they still exceed death rates. Africa's population grows 3% a year. The United Nations projects human population to reach nine billion by 2050 before it stabilizes.

What is the solution to the problem of environmental degradation? "Social development projects backed by appropriate environmental and population policies, adequate financing, land reform, and local control have been successful in lowering birth rates and reducing the degradation of ecosystems" (p. 11). In discussing these topics, the authors think "Christians can draw on various aspects of their tradition as they grapple with ethical issues related to these topics" (p. 175).

The book has received praise as "a real treasure," "ethics done well," and "teaching at its best." At the end of the book, in addition to an index, is an appendix on resources for teaching. This feature makes *Christian Environmental*

*Ethics* an appropriate choice for use in a discussion group. A college or adult Sunday School teacher might profitably use it in a class. Its case studies and personal references keep it from being too erudite and pedantic. Christians can become much better informed about the environmental crisis by reading *Christian Environmental Ethics*. I recommend it.

Reviewed by Richard Ruble, John Brown University, Siloam Springs, AR 72761.



## FAITH & SCIENCE

**SCIENCE AND CHRISTIANITY: Conflict or Coherence?** by Henry F. Schaefer. Watkinsville, GA: The Apollos Trust, 2003. 179 pages, appendix, and index. ISBN: 097429750X.

Schaefer is a professor of chemistry at the University of Georgia, and this is his first book. It is a compilation of some speeches he has given on apologetics over the past twenty years. In the preface, Schaefer notes that this is both good and bad. Most of the egregious errors have been removed over the years, but the references documenting the points are lacking.

The book has ten chapters covering areas like Scientists and their Gods, The Nondebate with Steven Weinberg, The Big Bang, Climbing Mount Improbable, Quantum Mechanics and Postmodernism, C. S. Lewis on Science and Scientism, Ten Questions Intellectuals Ask, his testimony, and what he calls "The Way of Discovery." Each is a self-contained essay, and they are all fairly basic and fairly nonphilosophical.

In the chapter Scientists and their Gods, Schaefer answers the question whether it is possible to be a scientist and a Christian. For most readers here, this will be a strange question akin to asking if it is possible to be a thief and a Christian. Schaefer answers in the positive citing several atheists, like Feynman, that it is OK to be a Christian and a scientist. He then notes that science developed in a Christian environment citing many of the early scientists as Christian (Kepler, Newton, Boyle, Pascal, etc.). But the problem with this approach is that one has to go back a few centuries to find Christians at the forefront of the scientific world, and in some sense whether William Perkins was a Christian seems not to matter much to the issues we face today reconciling our faith with observation.

From a personal perspective, The Nondebate with Steven Weinberg was interesting as Schaefer cited my web account of that "debate." Schaefer claims that Weinberg equated Mohammed, Jesus, and Buddha and "called the three religious leaders 'fairies.'" The tape I have of the debate shows that he did not name Mohammed or Buddha but named Zeus, Jehovah, Christ, and Allah. Weinberg used the term as a placeholder for any supernatural being. Schaefer also claimed that Weinberg almost broke down when he said that people would not see their families after death, but others there recall the statement but do not recall the near breakdown.

The chapter on the Big Bang discusses the anthropic principle and the chapter on Dawkins presents the usual

## Book Reviews

arguments against the origin of life. There is little which is novel in these chapters. Schaefer's idea of what is in the geological record and its order is vastly different. When outlining his conformance between the Scripture and earth history, he has land plants arise before marine life. This is, of course, backwards. He also claims that Day 4 was a clearing of the atmosphere, an event for which there is absolutely no evidence. And flying creatures do not arise before land animals, contra this book.

The Ten Questions chapter actually presents twenty-one questions which are all rather basic, "Who made God?" "Who is Jesus?" "What about other religions?" etc. The questions are answered with simple answers. One gets the feel that the responses are superficial.

The lack of philosophical depth to the book is best illustrated by Schaefer's surprise that the question "Can God make a rock so big that he can't lift it?" was not a joke. That is one of the biggest weaknesses of the book. The book gives the impression that there has been no deep wrestling with the issues confronting theology today. That is too bad as Schaefer obviously has made important contributions to quantum chemistry.

There are very few references throughout the book and indeed the book seems to have been little altered from the lecture notes. While that will be a good documentation of his lectures, it is unlikely to make much of a mark on the intellectual tenor of our times.

*Reviewed by Glenn Morton, 10131 Cairn Meadows Dr., Spring, TX 77379.*



## HEALTH AND MEDICINE

**THE HEALING CONNECTION: The Story of a Physician's Search for the Link between Faith and Health** by Harold G. Koenig. Philadelphia, PA: Templeton Foundation Press, 2004. 204 pages. Paperback; \$14.95. ISBN: 1932031650.

Koenig is the director of the Duke University Center for the Study of Religion/Spirituality and Health, and editor of *Science and Theology News*. He has authored dozens of books and journal articles about the relationship between faith and health. Templeton Foundation Press, the publisher of this book, promotes knowledge about invisible and intangible reality including such spiritual aspects as love, creativity, worship, and purpose.

Koenig's interest in faith and health has been influenced by his life's personal experiences, contact with patients, and his study of research outcomes. He learned that in times of physical and emotional turmoil, people turn to religion for help. Many of them find it helps lessen depression, anxiety, and physical symptoms.

Koenig is careful to point out that benefits flowing from religious belief do not prove God's existence. Furthermore, religious faith does not guarantee good health and long life. But Koenig does conclude that both individuals and churches might consider how physical and mental well-being can be improved by religious faith and action.

*Reviewed by Richard Ruble, John Brown University, Siloam Springs, AR 72761.*



## HISTORY OF SCIENCE

**LIVING ENERGIES** by Callum Coats. Gateway (www.gillmacmillan.ie), 2001, 311 pages, Paperback; \$19.95. ISBN: 0946551979.

The back cover introduces author Coats as a "scientist and architect" who has spent twenty-three years translating and editing the works of Austrian forester and inventor Viktor Schaubberger (1885-1958). The book begins with a biography of Schaubberger's life, involving his son Walter, in his largely frustrated efforts to either commercialize his inventions or convince the scientific community of his theories about energy, motion, the sun, fluid mechanics, water, agriculture, and atomic theory.

I could only read half way through the book; the rest was skimmed. My motivation to continue was depleted by the many high-school-level errors in physics, reasoning, unconventional and abstruse use of scientific terminology, vagueness, and failure to cite and confront conflicting work. Schaubberger was opposed to the more established science, technology, and theology he encountered.

The work amalgamates pseudoscience, the occult philosophy of Helena Blavatsky, and ecological concerns into a profoundly incoherent manifestation of why the scientific and Christian communities reject the genre of literature of which this book serves as an excellent example. A particular instance of the book's content: Schaubberger's explicitly neo-pagan views about water appear in the chapter, "The Nature of Water." To Schaubberger, water is

the "original" substance called into being through the "original" motion of the Earth, itself the manifestation of even more sublime forces. Being the offspring or the "First Born" of these energies, as he put it, he maintained and frequently asserted that "*Water is a living substance!*" (p. 107, original emphasis).

This view is combined with the homeopathic claim that substances in water leave a memory, though the molecules of these substances are completely removed from it. Schaubberger, in regarding water as alive, rates its quality based on its source and history. He is also fascinated by fluid phenomena, especially vortices. He is concerned that hydroelectric dams damage water, "hurled against steel turbine blades, where it is smashed to smithereens. The physical structure of the water is literally demolished and all the dissolved oxygen, and even some of the oxygen in the water molecule itself, is centrifuged out of the water."

While some of Schaubberger's patented inventions might contain new ideas, this book is of value only in illustrating a growing body of literature read by the general public which hides, confuses, and misleads the reader regarding the true nature of physical reality and its relationship to spiritual reality.

*Reviewed by Dennis L. Feucht, Cayo, Belize.*

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Please update your address book.



## NATURAL SCIENCES

**RATIONAL MYSTICISM: Dispatches from the Border between Science and Spirituality** by John Horgan. New York: Houghton Mifflin Company, 2003. 292 pages. Hardcover; \$25.00. ISBN: 0618060278.

In *Rational Mysticism*, Horgan examines how science, theology, and philosophy deal with spiritual enlightenment and mysticism. In his quest for understanding, he interviewed, among others, theologian Andrew Newberg, transcendental psychologist and Buddhist Ken Wilber, psychedelic pharmacologist Alexander Shulgin, psychologist Susan Blakemore, and shaman Terence McKenna. Horgan is interested in how mysticism is dealt with by neurology, anthropology, physics, and other scientific enterprises.

Here are some of the questions Horgan considers: (1) What neurological links exist between mysticism and madness? (2) If heaven is the ultimate, why did God create anything else? (3) Were Paul's spiritual experiences caused by epilepsy? (4) Do yoga and prayer affect the brain similarly? and (5) Is all mysticism chemically based?

Horgan identifies himself as a "lapsed Catholic," but he seeks to be objective, fair, and candid in his appraisals. His experience as a science writer left him too skeptical to believe in revelations (p. 14); Horgan is not a biblical believer. Nevertheless, he thinks some people who think they are too rational to believe in Christianity have faith that scientific progress is unending. He disagrees. He thinks the important questions will always go unanswered in this life: "Science will never give us The Answer, a theory powerful enough to dispel all mystery from the universe forever" (p. 4). Christians might agree that many questions are unanswered now; they would also affirm that someday "we shall know" (1 Cor. 13:12).

In his *New York Times* review of this book, Dick Teresi observes that mystic believers write about spiritual enlightenment with "gooey prose" whereas skeptics write about it with "adolescent bitchiness." Horgan walks a fine line between these two extremes seeking to affirm what is empirically believable while raising a skeptical eyebrow over undocumented claims. This means that the enlightened may find this book a tad critical while the "mystical eunuch" (to quote Teresi) will continue to search for answers.

Horgan critiques each position. To give two examples: (1) Horgan finds Huston Smith's Perennial Philosophy, which sees good in all religions, deficient because religions contradict each other in certain vital ways; and (2) He sees postmodernism, which holds truth to be inexpressible, inadequate because it is "a conversation about the unspeakable" (p. 37), "hostile to any kind of belief" (p. 40).

Horgan authored *The Undiscovered Mind* and *The End of Science* (it sold 200,000 copies and irritated some scientists). He was a senior writer for *Scientific American* and has been published in leading newspapers and other publications. Now he is a free-lance writer living in New York's Hudson Valley.

*Reviewed by Richard Ruble, John Brown University, Siloam Springs, AR 72761.*

**EARTH'S ECHO: Sacred Encounters with Nature** by Robert M. Hama. Notre Dame, IN: Ave Maria Press & Sorin Books, 2002. 190 pages. Paperback; \$12.95. ISBN: 1893732460.

God has revealed himself in Scripture and in nature. In *Earth's Echo*, Hama writes of how to find God in nature. He displays his thoughts in six chapter divisions based on geography: nature, shore, forest, desert, river, and mountain. Contributors via quotes include Bill Bryson, of *A Walk in the Woods* fame, Rachel Carson, best known for her *Silent Spring*, and Charles Frazier, author of *Cold Mountain*. Henry David Thoreau and Walt Whitman are also noted.

Hama finds nature, in all its manifestations, a rich and enduring fountain of spirituality. His appreciation for nature goes back to the summer nights of his boyhood when he gazed at the starry sky and listened to the chirping of the katydids. Now Hama sees in nature the presence and action of God. To Hama, God is in the song of the cardinal, the embrace of a loved one, and the exhilarating plunge in the sea.

Hama believes we are assisted in exploring the wonders of nature by reading the observations expressed by others: "Their writings are sacred because their subject, the earth, is sacred" (p. 22). In reading the words of others, Hama recommends that we (1) pay attention at a higher level, (2) ponder thoughts of our own, (3) respond to God, and (4) surrender our hearts to the One who has called us. As Hama proceeds through his geographical divisions, his quotes fall under each of these four headings.

Some readers may find this book tending toward pantheism since there is such an emphasis upon the oneness of God and nature. The writers who are quoted come from a variety of religious traditions. Nevertheless, the author, a graduate of the University of Notre Dame, quotes some from the Bible. This book will indeed call forth quite a bit of pondering about creation and the God of creation. Its insights can elicit awe and surrender and be a helpful devotional accessory.

*Reviewed by Richard Ruble, John Brown University, Siloam Springs, AR 72761.*



## ORIGINS & COSMOLOGY

**THE DESIGN REVOLUTION: Answering the Toughest Questions about Intelligent Design** by William A. Dembski. Downers Grove, IL: InterVarsity Press, 2004. 334 pages, index. Paperback; \$22.00. ISBN: 0830823751.

Dembski has previously published *The Design Inference*, *Intelligent Design*, and *No Free Lunch*. This book should not be ignored or treated with indifference. It should be required reading for all ASA members! If Dembski is wrong, he needs to be answered (especially as he is critical of the position taken by ASA members at several points); if right, then his views will ultimately change the nature of the ASA, and maybe even the scientific establishment.

Dembski has a razor-sharp mind and meets the challenges of Darwinism with clarity, precision, and critical sense; leaving the reader with the conviction that they



## Book Reviews

have received honest, satisfying, and definitive answers to the toughest questions. The book is divided into forty-four chapters, each devoted to a different issue. There is inevitable overlap, but never a sense of needless repetition. The chapters are grouped into six parts, each with an overriding theme.

Part One (Basic Distinction) introduces intelligent design (ID) as a scientific theory distinguished from theological approaches such as the doctrine of creation and the traditional design argument. A chapter is devoted to distinguishing ID from scientific creationism.

Part Two (Detecting Design) outlines the design inference, specified complexity, and explanatory filter, and calls for a truly scientific approach that follows the empirical biological evidence and does not prejudge the answer by denying the possibility of anything other than undirected natural causes.

Part Three (Information) points out that information is fundamentally different from matter and questions whether undirected natural forces are able to bridge the vast gulf between the inorganic world and the information-rich organic world. Information also opens the possibility of a designer affecting the physical universe without being an interventionist: "Unembodied designers who co-opt random processes and induce them to exhibit specified complexity are not required to expend any energy. For them the problem of expending energy to move material objects simply does not arise."

Part Four (Issues Arising from Naturalism) throws down the gauntlet to methodological naturalists, who hold methodological naturalism as a dogma that not only "takes evolution as God's method of creating life but rules out of court the possibility that God might have left any empirical fingerprints." Recent religious naturalism does not allow for supernatural intervention and thus rules out the possibility of predictive prophecy and miracles. Dembski considers the contrast between natural and supernatural causes to be wrong. For him the proper contrast is between undirected natural causes and intelligent causes. "Intelligent causes can work with natural causes and help them to accomplish things that undirected natural causes cannot."

Part Five (Theoretical Challenges to ID) has Dembski the philosopher and mathematician answering the more detailed and technical criticisms of ID. Some chapters are not easy reading, though I particularly enjoyed his insight into David Hume whom I found difficult in my undergraduate days.

Part Six (A New Kind of Science) shows that Dembski is conscious of being part of a new revolution in science, hence the title of the book. Not only does his book make another major new contribution to the design movement, but this part also outlines a course of action for what needs to be taken to ensure that ID does not fizzle out but becomes a widely accepted and truly testable science including aspects of refutability, confirmation, predictability, and explanatory power.

*The Design Revolution* is highly readable with many illuminating, down-to-earth illustrations. All thinking scientists will enjoy the read, even if it is only to sharpen their own rhetoric skills. Dembski is widely read and interacts

with the leading voices of a wide range of disciplines. His logic is at times devastating and more than once he comments on the irony of a particular attack against ID. His chapter on Selective Skepticism is highly amusing.

*Reviewed by Bryan Ezard, 14 Graham Street, Goolwa, 5214, Australia.*

**PHYSICS OF GENESIS** by James Allen Thompson. Las Vegas, NV: Chiron Development, 2004. 145 pages. Hardcover; \$14.99. ISBN: 0974494518.

Thompson, a graduate from Portland State University, has a degree in theology from Luther Theological Seminary. He has also done post-graduate work at the Graduate Theological Union in Berkeley and written a number of articles on a variety of subjects and two other books on theological issues.

*Physics of Genesis* is divided into two sections. The first part is a look at the biblical book of Genesis to study the text and determine what type of literature it is. The second part of the book is an investigation into the assumptions of Darwinism and the methods of science. Although Thompson quotes many authors and articles, there is no bibliography nor any footnotes. There is one minor illustration.

The premise of this book is that one need not take a side in the creation/evolution debate. The important thing is the debate itself and what we can learn from it. His first point is his conclusion that Genesis is a scientific treatise based on the best research available at the time, that of the Ionian empiricists of the fifth-fourth centuries BCE. The emphasis of Genesis is not God creating but a process of creation that relies heavily on the operation of laws and mathematical principles. The main question of Genesis is not, "Is this universe a work of God?" but "Is the world structured to natural laws as defined in Pythagorean and Ionian terms?" His second point is that Darwinism is a religion, not a science. Darwinists make passionate statements of faith, not of scientific fact.

That Genesis is scientific literature is not a new concept, but Thompson's argument that the writer of Genesis based his writing on the Ionians and Pythagoreans is innovative. That Darwinism is a religion many creationists have concluded for decades. Thompson adds no new material to the argument although he does review many of the current facts.

Thompson quotes Genesis One a great deal, but he has a habit of quoting only part of the indicated statement. He frequently leaves out "and God said," claiming God is not actively present as plants and animals develop. He also uses his own translation to "prove" that the earth sprouted greenery without God's action. One can certainly disagree with Thompson in his assumption the language of Genesis One is passive rather than active, showing God's commands in creation.

Thompson's selective quoting of partial statements as complete ones in Genesis makes one leery of his quotations from various scientists in the second part of the book. The quotes are not footnoted and rarely are page numbers given. Without research, there is no way of knowing if Thompson is quoting statements in part or out of context.

The significance of this book is limited. Those who appreciate a well-documented and precise argument will find this book frustrating. The book is self-published and lacks the benefitting work of an editor. Thompson seems to have acquired his scientific insights from reading the books of others, such as Michael Behe, Philip Johnson, Richard Milton, and Richard Dawkins. Thompson adds nothing new to the discussion other than his own philosophical musings.

*Reviewed by Joan Nienhuis, owner of His Place Christian Bookstore, Oak Harbor, WA 98277.*

**UNCOMMON DISSENT: Intellectuals Who Find Darwinism Unconvincing** by William A. Dembski, ed. Wilmington, DE: ISI Books, 2004. 306 pages, notes, appendix and index. Paperback; \$18.00. ISBN: 1932236317.

Dembski, associate research professor at Baylor University, is the author/editor of numerous books and articles. In this book, he has compiled a series of articles from authors critical of some aspect of Darwinian theory. He says that the purpose of the book is "to expose and unseat the myths that have gathered around Darwinism." The book has fourteen chapters by authors such as Koons, Johnson, Shützenberger, Pearcey, Denton, and Behe. Each author outlines his or her problem with Darwinism.

Koons describes five stages of science, says that Darwinism is at stage 1, but then acknowledges that ID is also at stage 1. Johnson's essay is fourteen years old, outdated, and lacking any mention of the progress made in the late 1990s on the origin of phyla. Budziszewski and Pearcey try scaring parents about the theological implications of evolution. Pearcey said things like: a reason for challenging evolution is so that churches and seminaries will not feel forced to accept evolution. That, of course, seems to ignore the bigger question: Is evolution true? If it is, then churches should accept it.

It is Edward Sisson's article which will most enrage scientists who seek for truth. Sisson is another lawyer who thinks that scientists build a case like a lawyer does—amorally lacking any regard for truth. He likens scientists to the lawyer who decides what must be true for the client to win and then seeks out data to support that view. That may be how ID works, but it is not how science works.

Frank Tipler argues that peer-review should be scrapped. None of Einstein's papers were peer reviewed; he cites numerous cases of leading scientists getting their Nobel Prize-winning papers rejected. That being said, the article was clearly chosen to try to make the case that ID proponents are not allowed to publish their papers in scientific journals. The chapter does seem a bit self-serving since one of Dembski's books was published by Cambridge University Press, hardly a scientific backwater.

The best article is by Denton, who tells his story of how he moved from biblical literalist to an almost deistic evolutionist in which teleology lies in the laws of nature. Denton's article undermines the ID case. He notes that there is no evidence today for anything remotely resembling a program which specifies in detail the phenotype. Thus he denies the very basis of complex specified information!

With Denton's article the book becomes incoherent. Many of the dissenters say evolution happened. They doubt that we have all the details of evolution correct. These authors make one understand why ID will not work.

James Barham is an emergentist, in which complex systems give rise to phenomena greater than the parts. He questions the ability of natural selection to create behaviors in which 1940s Germans, at the cost of their own lives, came to the defense of their non-kin, Jewish neighbors. He argues that the properties of life emerge from the laws of the universe. Such views hardly help the ID case.

Roland Hirsch criticizes evolution for not anticipating certain discoveries, but then fails to apply that approach to astronomy and physics which also do not always anticipate their discoveries. Cornelius Hunter uses classical misunderstandings of the fossil record to claim that it does not support evolution.

Langdon also seems to argue for a self-contained universe, one at odds with the ID viewpoint and fully in line with the evolutionary paradigm. Indeed, if Langdon is correct, there is no need for God because Langdon proposes that nature brings forth both itself and logic from a self-contained system. One might wonder why Dembski thinks killing off Darwinism with this view is a good idea for theology.

The book is worth owning for the two articles by Tipler and Denton. The book lacks a really coherent message through the articles and does not achieve Dembski's goal. Dembski seems to believe that anyone who has something bad to say about Darwinism, even if they are evolutionists, makes a case for ID. It is hardly uncommon for scientists to have dissenting nitpicks with current theories.

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## RELIGION AND CHRISTIAN FAITH

**THE MAKING AND UNMAKING OF TECHNOLOGICAL SOCIETY: How Christianity Can Save Modernity from Itself** by Murray Jardine. Grand Rapids, MI: Brazos Press, 2004. 304 pages, bibliography and notes. Paperback; \$24.99. ISBN: 1587430703.

Jardine is an associate professor of political science at Auburn University. He has written another book, *Speech and Political Practice*, that provides a lens which he uses to examine our technological consumer society from a biblical perspective.

This book is divided into three parts, each divided into chapters. Part I traces "The Evolution and Crisis of Modern Technological Societies" through a stunning whirlwind of political philosophy from Plato and Aristotle through Hobbes, Locke, and Mills. The Enlightenment foundation of our modern technological society is explored. Jardine does an excellent job of showing exactly why it was inevitable that Western culture developed the way it has. He also asserts that to continue to follow this trajectory is self-destructive. Jardine's expertise is in political philosophy and it clearly shows. Part I alone makes the purchase of this book worthwhile. His arguments are original and compelling.

## Book Reviews

Part II explores how Christianity relates to the current social crisis in the West. Jardine traces Christian theology and its incorporation of Greek ideas that subtly altered the basic Christian Gospel until the Enlightenment secularized the Protestant work ethic and turned it into an engine driving society, into capitalism, and ultimately, consumerism.

Part III is Jardine's attempt to sketch out a rough "Christian Response to the Modern Crisis." He makes no claim to have all of the answers, but instead puts forth some ideas about how neighborhoods could be structured, work could be re-imagined, and what our care of the aging could look like. His view is that Christian churches cannot stop modernity from self-destructing, but that they can provide examples of alternatives when the house crashes down. This part was a little disappointing, if one is looking for concrete action plans, but it provides food for thought. It is a starting point.

This book was impossible for me to put down. The pace of Part I and the tying together of seemingly unrelated observations placed our current social situation in an entirely new context. Jardine is unafraid to let the chips fall where they may when pursuing truth. Readers will, at some point, find basic assumptions about modern life challenged. His use of the Bible to analyze the current cultural "narrative" was well done; he does not look for exact proof-texts, but rather looks for biblical truths stated in broad strokes. I recommend this book to anyone who wants to explore *why* our culture is obsessed with technology without the ability to display moral restraint. It is primarily a philosophical book and not a technological one. For this reason, it is a breath of fresh air in a society that has almost forgotten that the question "why?" is every bit as important as the question "how?"

*Reviewed by David Condrón, Marine Engineer, Friend Ships, Lake Charles, LA 70601.*



### SOCIAL SCIENCE

**THE FIRST IDEA** by Stanley I. Greenspan and Stuart G. Shanker. Cambridge, MA: DaCapo Press, 2004. 456 pages plus notes, and bibliography. Hardcover; \$25.00. ISBN: 0738206806.

This is the third book for Greenspan, a professor at George Washington University, and the second for Shanker, a professor of philosophy and psychology at York University in Toronto. The book is divided into four parts with fifteen chapters. It attempts to explain how symbol use, language, and thus social groups form both in individual development and in human evolutionary history. Their thesis comes from work with autistic children and with the symbol-using apes in Sue Savage-Rumbaugh's lab.

Greenspan and Shanker base their view upon the observation that to form symbols, a human infant must invest the word with emotion. Apples are not "just red and round." They are something you proudly give to a teacher or eat to keep the doctor away. The authors contend that without an ability to separate perception from action, symbol use does not appear. Autistic children have problems forming symbols and thus they act out their perceptions

rather than symbolically think about the situation. The authors contend that many of the ills of society are due to inhibited formation of symbol use in childhood. They apply this concept to issues like the failure to install democracy in some nations (e.g., Iraq does not have the proper child nurturing process). In the middle ages, children were swaddled and given little attention, but Renaissance care-giving was more interactive between parent and child, leading to a symbolically thinking nation. Infancy and childhood gradually lengthened over the past five million years allowing more parent-child interaction which they correlate to the rise of language and art.

The authors overreach by making childcare practices the basic unit of the psychological universe, a bit reminiscent of Milesian philosophers who, instead of choosing water as the basic element, choose emotion. The authors are radical Lockean empiricists. Our use of symbols, and thus language, is not hard-wired into the brain or genes as Chomsky and Pinker have argued. Each generation must, through child-nurturing practices, pass on symbol and language use to the next generation. What of the human universals, things like facial expressions, language, laughter and the brain's language centers? Are they not genetically determined? They argue we are born a *tabula rasa*, using Locke's terms. They acknowledge this might be considered heretical by their fellow scientists.

The authors claim biology only brings to the table a neural system capable of being programmed. They claim, a bit like Lamarck, that the culturally programmed items, like language, are not affected by our genes at all. This ignores Bickerton's observation that children raised where pidgin languages were spoken (languages without fixed grammar which occur in polyglot settings), instantly create new languages with fully-formed grammar. Who teaches the children the grammar? It is not the caregivers who do not have it. They do not explain why, barring pathology, the same part of the brain forms the language center in almost all humans. Caregiving cannot be responsible for that, can it?

This claim that symbol use only needs a pliable brain raises the immediate question of why my cat, orphaned at one week, raised by nurturing humans, still likes to chase small furry things rather than type on my computer keyboard like me. The same question can be asked of chimps raised by humans in human homes. The case for absolutely no role for nature as opposed to nurture, seems the weakest part of the book.

An amusing aspect of the book is that the authors take political correctness to its extreme. Not a single male infant is discussed in the book—all are referred to as "she," even when they are playing with trucks. A sarcastic individual might wonder why they never study male infants. One anthropological error is that they say the earliest recognized representation of a face, the Makapansgat pebble, was found in 1998, when it was found in 1925.

The book is a must read for anyone interested in the issues of human evolution, especially the evolution of cognition. While the authors may not solve the problem of the origin of speech, they do have significant things to add to the discussion.

*Reviewed by Glenn Morton, 10131 Cairn Meadows Dr., Spring, TX 77379.*



**THRIFT AND GENEROSITY: The Joy of Giving** by John M. Templeton, Jr. Philadelphia, PA: Templeton Foundation Press, 2004. 107 pages. Hardcover; \$12.95. ISBN: 1932031715.

This book puts forward the idea that thrift and generosity produce large returns, one of which is joy. Thrift is part of a spiritual and cultural understanding of how time, talents, and resources are used. Thrifty people make careful, thoughtful, wise decisions about how to expend their resources. Generosity is sharing what you have with other people, especially the needy. Thrift can provide the means to practice generosity. The author illustrates these two virtues with quotes from the Bible, literature, philosophy, and daily life.

Templeton includes many trenchant quotes, especially from Benjamin Franklin. Franklin on thrift: "Buy what you have no need of, and before long you will sell your necessities." Generosity enables us "to welcome the weeping widow; to provide for her a place to rest; to dry up her tears; to feed and educate her little orphans, and to put them in a way to gain an honest livelihood."

The quotes in this book provide splendid fodder for a sermon or talk. They alone are worth the price of the book. Templeton uses them to great effect to show that in practicing thrift and generosity "a bit of fragrance always clings to the hand that gives the rose." A life of altruism may be the only way to joy: "When sailing on the Titanic, even first class cannot get you where you want to go." It is worth noting that Jesus said you will be more blessed if you are on the giving rather than the receiving end.

This is a wonderful little book, full of pithy observations, illuminated with many illustrations, touching the heart as well as the purse strings. It points its readers in the direction of finding peace, happiness, and freedom by giving them to other people. The author practices what he advocates. In 1995 he retired from his medical practice to direct the activities of the John Templeton Foundation, an organization whose goal is to encourage the advancement of religious and scientific enterprises.

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## Are Patriarchal Ages Factual or Fictional?

Richard Johnson highlights several remarkable patterns in his letter, "Patriarchal Ages in Genesis" (*PSCF* 56, no. 2 [2004]: 152-3), endorsing the conclusions in Carol Hill's article, "Making Sense of the Numbers in Genesis" (*PSCF* 55, no. 4 [2003]: 239-51). Both writers agree that the numbers should be interpreted symbolically, not literally, evidently assuming that while God or inspired bards might contrive lovely patterns, factual ages would be more typical of documented life spans and less aligned with cultural preferences or numerological symbolism. Finding similar patterns hidden in ancient Mesopotamian texts would support the idea that Genesis has fictional and symbolic numbers, but can any evidence be found that they are factual and literal after all?

Consider remarkable patterns of numbers related to US presidents. Only eleven were elected in a year evenly divisible by twenty. Of these, all but the first two and the last two died while in office (Harrison, Lincoln, Garfield, McKinley, Harding, Roosevelt, and Kennedy), and these seven all died in a year whose final digit was 1, 3, or 5. Only one other president (Taylor) died in office (in 1850). The sum of the numbers for the month of death of the seven presidents is 49 ( $= 7 \times 7$ ). This is admittedly less impressive than the patterns Johnson noticed, but suppose someone living in the distant future sees patterns in a history of these presidents and concludes that the numbers must be fictional and symbolic. The idea might pass muster if no confirmation of the factuality of the death dates can be found at the time.

Gerald Aardsma may have found just the sort of confirmation of historicity that should be lacking if the Genesis numbers are fictional. Using these numbers, he constructed a chronology stretching all the way back to the creation of Adam ("Toward Unification of Pre-Flood Chronology," *The Biblical Chronologist* 4, no. 4 [1998]: 2). Johnson's pattern observations range from Adam to Moses. Although no events earlier than Noah's flood are likely to have left identifiable and accurately datable vestiges, this event can be dated to a time consistent with the Aardsma chronology, as explained in my earlier letters, "On the Hills of Concordism and Creation Science" (*PSCF* 55, no. 4 [2003]: 278) and "Do Ice Cores Disprove Aardsma's Flood Theory?" (*PSCF* 56, no. 1 [2004]: 76-7). This finding, if it holds up under closer scrutiny, suggests that the numbers are factual, at least from Noah on.

Has anyone noticed that 777, the age of Lamech, is 3333 when written as a base-6 number? How many other base-10 numbers have a similar property? Johnson said his letter did not cover all the patterns he had noticed, so there must be even more, but if the numbers are factual and Aardsma's chronology is correct, then they will be consistent with all verifiable facts, regardless of how improbable or culturally symbolic the number patterns may be. Has any clear inconsistency ever been demonstrated?

Abraham's age (175) heads one of Johnson's patterned lists, but Aardsma claims secular synchronization with his period as well, citing Gen. 13:10 and a modern study of salt caves near the Dead Sea ("Mount Sodom Confirms Missing Millennium," *The Biblical Chronologist* 1, no. 1 [1995]: 1-4). Although further confirmation would certainly help, Aardsma corroborates traditional acceptance of the Genesis numbers as literal, factual ages, favoring the sovereignty and creativity of God (Ps. 139:16; Isa. 40:22-24, 42:5, 46:10-11; Acts 17:24-28) as still the best explanation for patterns.

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## Only One

Williams and Dickerson have *not* described two different systems (*PSCF* 56, no. 2 [June 2004]: 102-10). While their pentagram clock has only five settings, any account of prior history (e.g., # revolutions) would provide "infinite" settings as easily as the hypothetical history that supplements the "other" system. Their *example* of modulo 5

arithmetic confuses the issue of whether their "system" is defined by its parameters or by an infinitely expandable *record* of arbitrary signals interacting with the system. Modulo 5 addition has an explicit goal of *discarding* higher order information in favor of repeating a count; it is no different from the clock. In modulo 5, the series of 0, 5, 10, 15, ... is "infinite" only in the trivial sense that the series 0, 0, 0, 0 ... is "infinite." If we discard one clock's history and compare it to the "infinite" potential history of another, infinity appears to "equal" five. It is almost a good card trick. But, in fact, the authors' two systems are the same.

Contrastingly, Abba's record is intact, inherent, and (humanly) irreducible. Triune *theory* is the entity that is modulo-like, for it forgets that higher order information exists (e.g., only Abba knows when the Son of Man will return; Matt. 24:36). The two real "systems" are not "equal" or "consubstantial" in their "substance." One is greater, just as Jesus repeatedly said (e.g., John 14:28).

The authors apologize for the model's limitations by bowing to paradox. If paradox is the appeal, consider the *original* version: Elohim made humankind in his image. Even so, he cannot be described or likened to *anything*. No image of him can be made, no attribute encompassed. This includes his metaphysical "substance." Some people refused to accept the paradox; they decided God is Jesus the Messiah, that Elohim is the second Adam, that the *icon* of God—double-click and the program opens—is *the program*. But if anything finite can be a "fullness" of infinity, then perhaps, like the authors' models, we are all "full" of the things we have forgotten, and perhaps we are all divine—at least as much as Athanasius, who advocated that Christ *had* to pay an "infinite" price or he (Athanasius) could not become God Almighty.

How many can recite Jesus' answer to the question, "Who is this 'Son of Man'?" (John 12:34). Why did Jesus recite, "Ye are gods"? (John 10:34, Ps. 82). If "God in Jesus" equals incarnation, what does "Jesus in us" equal? (John 14:20). Contemporary Trinity forgets dozens of such verses, while fourth century Trinity is blatantly self-glorifying; both are illogical. Is the *logos* to be defined in *illogos*—logic by illogic, reason by the incomprehensible, words by hand-waves? Few concepts are as antithetical to science or the Gospel.

Since Jesus is the first-fruit—the first born into the Resurrection—the beginning of the new Creation, what does *beginning* mean? Is Jesus the foreordained Messiah who existed prior to his "begetting"? Yes, but Paul tells us "begetting" (*yalad*) refers to the *resurrection* of the man Jesus (Acts 13:33, Ps. 2). The word *beginning* means both less and more than Trinity presumes.

Newton decided Trinity is a fraud. This remains the logical and consistent conclusion on the matter. Williams and Dickerson imply disbelief by Isaac in regard to the "miraculous and mysterious" (p. 104). But others degrade Newton for suggesting that God adjusts his clockworks. Which is it? Is Newton's God too tiny or too big, too distant or too close? Which caricature makes Trinity right?

Trinity is *still* without mathematical blessing, congruent with its lack of scriptural vocabulary or clear support. It is short on mere (non-fraudulent) scriptural *hints* that can be "taken" in its favor, yet foundered in opposing

verses, tainted by paganism, surrounded at every stage by controversy, bloodshed, and persecution and completely without a logical, sensible, or comprehensible foundation. Superstition is about forgetting the real question and focusing on fantastic speculations; science and Christianity are antithetical to this. Oh barbarian brothers in Christ! Why do you call our master "Good"? Only God our Father is Good (Matt. 19:17); only God is God.

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## Old Glaciers

Derek Eshelbrenner's Letter (PSCF 56, no. 2 [June 2004]: 156–7) on Paul Seely's article about Greenland's Ice Glacier was entertaining but did not have much depth to it. Derek indicates that the Greenland Ice Glacier might have floated in one spot during the six months or more of the Genesis flooding. I am sure Derek has not thought it through, how high the Greenland glacier would have had to float as it hovered over Greenland Island during the turbulent Genesis flooding.

The Genesis story says that the flood water "... prevailed so mightily upon the earth that all the HIGH mountains ..." were covered by fifteen cubits of water. Nine out of the ten highest peaks in the world reside in the Himalaya range and climb up to 29,035 feet for Mt. Everest. From the Genesis story, the flood waters would have had to top Mt. Everest, so Greenland's glacier hovered for six months at about 5½ miles high above Greenland's island. That would be quite a feat and I am sure not impossible for God to do. But if God did that for this old Glacier, he would have done it for all of the other old glaciers in the world.

Most people do not realize that there are over 71,000 glaciers that are currently being monitored by the World Glacier Monitoring Service, WGMS.<sup>1</sup> Most of these glaciers are known as short timers, a few thousand years, but there are many that are showing to be very old by the process of cutting deep Ice Cores into them.<sup>2</sup> The Bolivian ice cores indicate a 25,000 year tropical climate history<sup>3</sup> and it goes up to 220,000 years before present [1995] at the Vostok Station in Antarctica<sup>4</sup> and the most recent analyses, 1997, of the Guliya Ice Cap in the Kunlun Shan Mountains of western China suggest a record of more than 500,000 years old.<sup>5</sup>

I for one do not understand why God would keep a 200,000 year old glacier floating above one spot of the earth during the Genesis flood and then drop it back down on the island it came from? How would that show that we live on a very young earth?

I would think the very evidence that there are many glaciers that are from 25,000 years up to 500,000 years old completely destroys the very concept of this earth being only 6,000 years old. Derek admits that there is no evidence for a worldwide Genesis flood but hopes that "science" will "demonstrate that a global flood did occur." The problem with Derek is he does not realize that "science" has already accumulated tons of evidence that "demonstrate that a global flood" could not ever have happened in the last 200,000 years. Every year archaeolo-



gists keep finding more evidence of humankind being around on this earth for more than 40,000 years.<sup>6</sup>

## Notes

<sup>1</sup>World Glacier Monitoring Service Available Data on web at: [www.geo.unizh.ch/wgms/wgms/home/data.htm](http://www.geo.unizh.ch/wgms/wgms/home/data.htm)

<sup>2</sup>Ice Cores on web at: [www.antarctic.com.au/encyclopaedia/physical/IceCores.html](http://www.antarctic.com.au/encyclopaedia/physical/IceCores.html)

<sup>3</sup>L. G. Thompson, et al. "A 25,000-Year Tropical Climate History from Bolivian Ice Cores," *Science* 282, no. 5295: 1858-64 on web at: <http://polarmet.mps.ohio-state.edu/Icecore/Abstracts/25Y-98.html>

<sup>4</sup>"Antarctica - Byrd & Dome C," on web at: <http://www-bprc.mps.ohio-state.edu/Icecore/ByrdStation.Dome.html>; and S. S. Abysov, et al., "Deciphering Mysteries of Past Climate From Antarctic Ice Cores," *Earth in Space* 8, no. 3 (November 1995): 9 on web at: [www.agu.org/sci\\_soc/vostok.html](http://www.agu.org/sci_soc/vostok.html)

<sup>5</sup>Earle Holland, "Researchers Date Chinese Ice Core to 500,000 Years," Ohio State University News Release (June 29 1997) on web at: [www.sciencedaily.com/print.php?url=/releases/1997/06/970629224509.htm](http://www.sciencedaily.com/print.php?url=/releases/1997/06/970629224509.htm)

<sup>6</sup>*Past Worlds: The Times Atlas of Archaeology* (London: Times Books Ltd, Harper & Collins, 1996). One hundred pages take you back in time many thousands of years.

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## Abraham Began the 430 Years: Such Numbers Are Not Figurative

Martin LaBar's letter in the previous issue (*PSCF* 56, no. 4 [Dec. 2004]: 308) disagrees with "Gilbert's interpretation of Exodus 12:40" described in my letter on "Genesis Age Gaps?" (*PSCF* 56, no. 2 [June 2004]: 153-4). I simply stated St. Paul's interpretation (Gal. 3:16-17) that the pre-Exodus 430 years began when God gave the covenant promise to Abram. Paul links this promise to the law that was introduced 430 years later and also to Christ. The first expression of the promise that refers to Christ tells Abram "All peoples on earth will be blessed through you" (Gen. 12:2-3). Christ Jesus accomplished that blessing and fulfilled that prophecy (John 8:56).

Abram begat Isaac twenty-five years after that promise was given (Gen. 12:4; 21:5). Isaac begat Jacob at age 60 (Gen. 25:26), and Jacob went to Egypt at age 130 (Gen. 47:9). Add those years up to get 215; subtract that from 430 to get 215 years between the descent into Egypt and the exodus. Josephus wrote: "They left Egypt ... 430 years after our forefather Abraham came to Canaan, but 215 years after Jacob removed from Egypt" ("Antiquities of the Jews," Book 2, Chap. 15:2, in *The Works of Josephus*, trans. Wm. Whiston [1736] (Peabody, MA: Hendrickson Publishers, 1987), 75.

LaBar argues that the 430 years began when Jacob and his sons went to join Joseph in Egypt. He bases his disagreement with Paul on Gen. 15:13, when God tells Abram "... your descendants shall be strangers in a country not their own, and they will be enslaved and mistreated four hundred years" (NIV). LaBar says that "means a captivity of Abraham's descendants, in Egypt, amounting to considerably more than 200 years."

First, "a country not their own" (NIV) is also translated as "a land ... not theirs" (KJV). These two translations provide different interpretations: "country" suggests that Abram was within the boundaries of a particular nation. "Land not theirs" is less specific and simply suggests "foreign soil" or "somebody else's turf." The NIV footnote to Exod. 12:40 says the Samaritan Pentateuch and the Septuagint name both Egypt and Canaan as the places of slavery and mistreatment foretold in Gen. 15:13.

Second, "descendants" (NIV) is a derivative of the primary meaning of the Hebrew in Gen. 15:13, which is "seed" (KJV). "Descendants" restricts interpretation of that word to "offspring already born," whereas the "seed" of Abram obviously went where he went until it joined the seed of Sarah to produce offspring of the promise, who are also included in "seed."

And third, LaBar interprets Gen. 15:13 to mean that slavery occupied many more than 200 years. However, compare "your descendants will be enslaved and mistreated four hundred years" with "Americans had a bloody Civil War and antagonism over slavery for decades." The war occupied only four years of those antagonistic decades, and the Hebrew slavery occupied considerably less than half the 400 years of "mistreatment." Moses, born into that slavery (Exod. 1:8-2:3), led the exodus at age 80 (Exod. 7:7), which indicates that the slavery began at least eighty years before the exodus.

Scripture does not say how long it was between the start of slavery and Moses' birth, but estimates range from 0-1 years (Klassen, 1975) to 38 years (Reece, 1977), according to *The Reece Chronological Bible* (Bethany [1980], 118-9). These estimates indicate a range of 80-118 years of slavery, which is less than half LaBar's estimate. My explanation for the thirty year difference between the 400 years of "mistreatment" (Gen. 15:13) and the 430 years of Exod. 12:40 is that Joseph held power in Egypt for thirty more years after Jacob and his sons joined him (his ages 40-70), during which time the Israelites were treated very well indeed (Gen. 47:11, 27).

For those who think the patriarchs were not "mistreated" (KJV has "afflicted"), consider Abraham's afflictions described in Genesis 12-20, and Gen. 23:2, which has Sarah separated from him at Kiriath Arba, possibly furious over the attempt to sacrifice Isaac, whose own afflictions are described in Genesis 26. Jacob sums up his afflictions in Gen. 47:9 (NIV): "My years have been ... difficult."

In response to Carol Hill's letter (*PSCF* 56, no. 4 [Dec. 2004]: 308), I agree with her point that Adam was around 6,000 years ago; I disagree with her point that Old Testament numbers are sometimes "sacred or figurative." I do not think God lied when he inspired the Scriptures, as attested by two witnesses (Heb. 6:18 and Titus 1:2), even "white lies" for numerological purposes; a patriarch can live to a "sacred" age if God wills it.

I thank my wife Mary Ann for insightful comments about this letter.

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## "Human Personhood" and Embryonic Stem Cells

Recent excellent contributions by Boomsma<sup>1</sup> and Mannoia<sup>2</sup> discuss multiple positions related to human embryonic stem cell (hES) research. Both mention briefly the basic question about such work; namely, when does the fertilized egg (blastocyst) become human. Many Christians agree that "Humanness" is not a biological trait but spiritual or supernatural (i.e., the presence of an eternal soul). At what point is the embryo endowed with a soul? There are no definitive Scriptures answering this question but there are both scriptural inferences and scientifically acquired information pertaining to it.

Studies of reproductive biology demonstrate that more than 50% of blastocysts are lost through failure to implant in the uterus or due to death or miscarriage after implantation.<sup>3</sup> Since the population of the United States exceeds 250 million and the birth rate approximates 14 births/1000,<sup>4</sup> the number of births per year in the United States approximates 3,500,000. A conservative estimation is that an equal number of blastocysts are lost each year. Are each of these lost blastocysts fully human and will their "souls" be in heaven? If so, then a high proportion of the population of heaven will be embryos (perhaps the highest proportion, particularly when one expands these figures worldwide!). Therefore, from the perspective of God's economy and redemption, it seems highly unlikely that each fertilized egg is endowed with an eternal soul at fertilization.

The question of when the soul is imparted to the human embryo cannot be clarified scientifically. However, there are Scriptures that shed light on this issue. Exodus 21:22, 23 describe a situation in which two men are fighting and injure a pregnant woman so that she has a miscarriage or a premature birth. There are two main positions on the meaning of these verses. In both, the death of the pregnant woman requires the application of the laws of retribution, i.e., giving "life for life, eye for eye, tooth for tooth, etc." The person causing the death of the pregnant woman must pay with his life. The disagreement about these verses relates to the punishment of the person causing the death of the baby. Clearly, at the time of the writing of Exodus, with the lack of medical expertise, almost 100% of miscarriages and premature births would result in death of the fetus or baby. According to many commentaries, the Scriptures direct that the offender for such occurrences must be fined as the judges determine and the laws of retribution would *not* be in effect. Others interpret these verses to say that the laws of retribution apply just as much for the death of the baby as for the death of the mother. A "middle of the road" position might be that the fetus is not considered human from the perspective of the laws of retribution until it at least is able to survive outside the uterus.

Other guidance comes from passages dealing with the punishment for adultery (Gen. 38:24; Lev. 20:10, 11, 12; 21:9; Deut. 22:21, 22, 24). Here the punishment is always death for the woman. Considering the high frequency of such behavior, it is likely that some of these adulterous women were pregnant or that fertilization had occurred prior to their deaths. Thus, the death of the blastocyst appears to have been of no consequence to the law, suggesting that it was not truly human or endowed with an immortal soul.

Of what relevance does the above information have to stem cell research? Clearly, adult stem cell work is very important, is producing amazing medical discoveries, and should be continued since it does not raise the kind of moral questions associated with embryonic stem cell research. Further, it seems appropriate to question whether the use of pre-implantation or *in vitro* fertilized blastocysts violates moral or scriptural guidelines since 50% or more of blastocysts die from natural causes. A further consideration is that in the medical freezers of our country there are thousands of frozen embryos left over from *in vitro* fertilization procedures and this number is increasing every day.

Research utilizing both types of stem cells appears to have tremendous positive health care potential and the above information should be considered in making decisions about such work.

## Notes

<sup>1</sup>R. A. Boomsma, "Embryonic Stem Cells and a Reformed Christian World View," *Perspectives on Science and Christian Faith* 56, no. 1 (2004): 38-48.

<sup>2</sup>K. A. Mannoia, "An Evaluation of Three Religious Perspectives on Stem Cell Research," *Perspectives on Science and Christian Faith* 56, no. 3 (2004): 216-25.

<sup>3</sup>Edmonds, D. Keith, K. S. Lindsay, J. F. Miller, E. Williamson, P. J. Wood, "Early Embryonic Mortality in Women," *Fertility and Sterility* 38, no. 4 (1982): 255-458; and R. G. Edwards, "Recent Scientific and Medical Advances in Assisted Human Conception," *International Journal of Developmental Biology* 41 (1997): 255-62.

<sup>4</sup>*The World Factbook* (Washington, DC: Central Intelligence Agency, 2003).

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## Concordism Lacks Concord with Both Scripture and Jesus

Peter Rüst's letter (*PSCF* 56, no. 3 [2004]: 235-6) contains a few statements which I think need correction. For one, the consensus interpretations of Old Testament scholars across the theological spectrum should not lightly be set aside as a mere appeal to authority. As in any field of knowledge, the opinions of those with the greatest background knowledge, training, and experience ought to be given precedence over the opinions of the less well informed. The private interpretations of concordism are not well informed and have no more right to set aside the consensus interpretations of Old Testament scholars than the private interpretations of creation science have to set aside the consensus interpretations of geologists and other scientists.<sup>1</sup>

Secondly, Rüst says I made a personal communication to him wherein I recommended the commentary by Alexander Rofé, *Introduction to the Composition of the Pentateuch*. This is a misleading statement since Rofé's book is not a commentary, and I recommended it only as a relatively easy-to-read introduction to higher criticism. I do not agree with everything in the book and very rarely

appeal to higher criticism. He then goes on to identify my view of accommodation with the views of Rofé, Bultmann, and other extreme critics. This is more than misleading, it is misrepresentation of a very serious kind. My view of accommodation is not wildly liberal but a development of John Calvin's view of accommodation, and it stays in principle within his view.<sup>2</sup>

Finally, Rüst says: "Accommodationism leads to unnecessary or even destructive offenses, particularly if moral accommodation is included." Since Jesus understood the implicit permission to divorce-for-any-reason granted in Deut. 24:1-4 as a moral accommodation to the rude cultural mores of the times (Matt. 19:8/Mark 10:5),<sup>3</sup> Rüst's statement makes the accommodationist view of Jesus even more to be shunned than mine. If, on the other hand, Jesus was right in recognizing moral accommodation in the Old Testament, then for followers of Jesus there must be room for accommodation to merely scientific matters as well.

## Notes

<sup>1</sup>Examples of the private interpretations of concordism can be found in "The First Four Days of Genesis in Concordist Theory and in Biblical Context," *PSCF* 49, no. 2 (June 1997): 85-95, also available at [www.asa3.org/ASA/PSCF/1997/PSCF6-97Seely.html](http://www.asa3.org/ASA/PSCF/1997/PSCF6-97Seely.html).

<sup>2</sup>See Paul H. Seely, "The Date of the Tower of Babel and Some Theological Implications," part VIII "Gracious Divine Accommodation to Limited Scientific Knowledge," *Westminster Theological Journal* 63 (2001): 32-8.

<sup>3</sup>The majority of commentaries on Matt. 19:8 and Mark 10:5 explicitly say that Jesus saw Deut. 24:1-4 as involving a concession or accommodation. Those remaining silent on the issue give no evidence of disagreeing with the others on this point.

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## A Further Response to Discher and Madden

Madden and Discher's "What Intelligent Design Does and Does not Imply" (*PSCF* 56, no. 4 [2004]: 286-91) and "What Would Count as Defeating Naturalism? A Reply to Van Till" (*Ibid.*, 296-8), continue the vein initiated by Discher in "Van Till and Intelligent Design" (*PSCF* 54, no. 4 [2002]: 220-31) and "Is Howard Van Till's Response to 'Van Till and Intelligent Design' a 'Right Stuff' Response?" (*Ibid.*, 240f), which they cite as demonstrating their accuracy (pp. 296, 298, note 2). This ignores three critiques, two very negative, by Krause, Blount, and me (*PSCF* 55, no. 1 [2003]: 68-70). In "On Discher's Reply to Van Till," I termed his second paper "dishonest" and "sophistry." Why this needs to be said by Van Till to be relevant (p. 296) escapes me.

Their definition of materialism (pp. 287, 289, 296), criticized by Van Till in "Is the ID Movement Capable of Defeating Naturalism? A Response to Madden and Discher" (*PSCF* 56, no. 4 [2004]: 293), is no longer relevant for it ignores complexity theory, also known as deterministic chaos. Systems are readily rendered unpredictable. The authors would profit from James Gleick, *Chaos: Making a New Science* (Viking, 1987), for they apparently did

not understand Van Till's reference to the weather, even though problems with weather prediction are probably the most common example given of chaos. However, much simpler matters can yield nonlinear results and unpredictability.

The authors write: "If it were the case that ID science made a legitimate claim that Darwinian natural selection is unable to explain ... we would be left with a choice between" hoping for scientific progress or rethinking materialism. Consider the situation in which no one can currently present a natural process whereby A has become B, but, of course, ID interventionism can (miraculously?). Obviously, we do not have the required scientific knowledge. But the authors require more for their dilemma: it is impossible to get from A to B by any natural process. This means not just that we will not know, but cannot know of a natural process. To illustrate the matter, of geometry I can confidently say that we will never prove the last theorem. It has been demonstrated that the number of theorems is infinite. But this cannot allow me to declare that a certain theorem will never be known. Yet this requirement is analogous to what the authors require. To continue my analogy, proofs hold only for specific sets of axioms. Axioms may be added or altered. Scientific disciplines are more obviously open-ended, with continued dependence on auxiliary hypotheses beyond the core theory. Euclid's original five postulates and five common notions were similarly dependent on "hypotheses" derived from the diagrams. Hilbert's axiom set is complete, not needing outside information. But such a shift in science with its underdetermined theories and auxiliary hypotheses will not occur, at least not till our glorification.

To apply this to Darwinism, now neo-Darwinism, we find ongoing changes as information arrives from genomics, proteomics, and other areas of discovery. This renders their requirement essentially impossible unless we observe the "designer" zap some creature into an entirely new form. I will expect this, to use the vernacular, when pigs fly.

There is, I believe, another deep problem that the authors have not perceived or, having perceived, deny. Materialism/scientism/ontological naturalism is clearly incompatible with ID, as with my non-ID theism. However, a noted philosopher (whose name I cannot recall) stated that materialism is one of four consistent philosophical views. This means that ultimately it cannot be disproved by anyone. This does not mean that all materialistic positions are consistent. Also, materialism involves more than the simple claim that only matter exists. To be sure, materialism has its problems, but so do all other ultimate philosophical positions. Hence, the aim of disproving materialism by ID is a will-o'-the-wisp, something pursued by those who do not recognize human finitude. I class it as an intellectual task paralleling building a perpetual motion machine.

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RFE and ID Universes Are Both Supernatural

I was intrigued by Howard J. Van Till’s reply in Dialogue III, “Is the ID Movement Capable of Defeating Naturalism?” (PSCF 56, no. 4 [Dec. 2004]: 292–5). He equates the unique characteristics of a robust formational economy (RFE) universe with the unique characteristics of a naturalistic universe.

A naturalistic universe proceeding from a naturalistic singularity is uncertain, contingent, and random. In a naturalistic universe, chance or the future is indeterminate to humans and to God. The universe, its capabilities and its potentialities, are natural to humans and to God.

A RFE universe proceeding from a God-designed singularity is ordained, non-contingent and ordered, for God, from all eternity, did freely and unchangeably ordain whatsoever comes to pass.<sup>1</sup> In a RFE universe, chance or the future is indeterminate to man but not to God. God has no contingency plans. The universe is natural to man but not to God. A scientist does his experiments, but God ordains the outcome. Man casts the lot into the lap, “but its every decision is from the Lord.”<sup>2</sup> A scientist, as a creature of the universe, cannot determine if the universe is loaded, because the load is supernatural and because there is no comparative universe against which to run experiments.

The characteristics of chance in each universe are distinct and are not interchangeable. Generally, Intelligent Design (ID) speaks against chance in a naturalistic universe.

A RFE universe possesses all the resources, capabilities and potentialities needed for the “formation of every kind of structure, system and organism that has appeared in the universe’s formational history.”<sup>3</sup> However, the capabilities and potentialities are not natural but supernatural. Every particle and wave retains a supernatural load until

heaven and Earth pass away. The universe is God’s “Rube Goldberg” device.

An ID universe is ordained, non-contingent and ordered. God’s hand-like activity is permitted, for “God, in his ordinary providence makes use of means, yet is free to work without, above, and against them, at his pleasure.”<sup>4</sup> Was not God’s hand-like activity present when he wove each of us in our mother’s womb<sup>5</sup> and when he made the deaf, the dumb and the blind?<sup>6</sup>

Does a particular atom decay at a specific location and at a specific moment in time (1) because the RFE potential activates the decay; or (2) because God speaks to it; or (3) because Christ chooses to sustain it no longer?<sup>7</sup> A scientist cannot determine which cause is operable because all three are supernatural.

The RFE universe and the ID universe are one and the same. They constitute the two sides of a single coin. (See chart below.) Can RFE defeat naturalism? Absolutely not. Can ID defeat naturalism? Absolutely not. RFE and ID are supernatural technologies. Neither is scientific. Naturalism is defeated by the logic and data found in quality science.

No scientific data uniquely and unequivocally support naturalistic evolution, for what could a naturalistic universe do that a RFE universe or an ID universe could not do?

Naturalistic macroevolution is based on “natural causes, both known and unknown.”<sup>8</sup> A reliance on unknown causes underscores the fact that naturalistic macroevolution is hypothetical. No *scientific* theory of evolution exists.

The probability of naturalistically assembling the genetic code for an integrated, functional, complex enzyme com-

The Physical Characteristics of Various Universes as Known by God and as Perceived by Humans

	NATURALISTIC UNIVERSE		ROBUST FORMATIONAL ECONOMY UNIVERSE		INTELLIGENT DESIGN UNIVERSE	
	God	Humans	God	Humans	God	Humans
Singularity	Natural	Natural	Supernatural	Natural	Supernatural	Natural
Scientific	Yes	Yes	Ordained	Yes	Ordained	Yes
Experimentation	Natural	Natural	Ordained	Natural	Ordained	Natural
Chance [The Future]	Indeterminate	Indeterminate	Ordained	Indeterminate	Ordained	Indeterminate
Uncertainty	Yes	Yes	No	Yes	No	Yes
Contingency	Yes	Yes	No	Yes	No	Yes
Randomness	Yes	Yes	No	Yes	No	Yes
Capabilities	Natural	Natural	Supernatural	Natural	Supernatural	Natural
Potentialities	Natural	Natural	Supernatural	Natural	Supernatural	Natural
Miracles	Deception	Deception	Supernatural	Supernatural	Supernatural	Supernatural

posed of 100 amino acid residues is about one chance in  $10^{65}$  per try.<sup>9</sup> The maximum number of individual organisms from all species ever existent on Earth is far less than  $10^{50}$  individual organisms.<sup>10</sup> Every step of naturalistic macroevolution must be accounted for with fewer than  $10^{50}$  tries, but  $10^{50}$  tries fails to be enough for the probable naturalistic assembly of even one gene coding for a small, integrated, functional, complex enzyme. Naturalistic macroevolution is an extremely irrational scientific hypothesis.

Since naturalistic macroevolution is a scientific hypothesis, which lacks unique and unequivocal scientific data and which is extremely irrational, it should be excluded from all scientific curricula.

### Notes

<sup>1</sup>The Westminster Confession of Faith, "Of God's Eternal Decree," chap. III, no. 1.

<sup>2</sup>Prov. 16:33.

<sup>3</sup>H. J. Van Till, "Is the ID Movement Capable of Defeating Naturalism? A Response to Madden and Discher," *Perspectives on Science and Christian Faith* 56, no. 4 (Dec. 2004): 292.

<sup>4</sup>The Westminster Confession of Faith, "Of Providence," chap. V, no. 1. <sup>5</sup>Ps. 139:13.

<sup>6</sup>Exod. 4:11.

<sup>7</sup>Col. 1:17; and Heb. 1:3.

<sup>8</sup>Van Till, "Is the ID Movement Capable of Defeating Naturalism?" 292.

<sup>9</sup>H. P. Yockey, "A Calculation of the Probability of Spontaneous Biogenesis by Information Theory," *Journal of Theoretical Biology* 67 (1997): 387; and J. F. Reidhaar-Olson and R. T. Sauer, "Functionally Acceptable Substitutions in Two  $\alpha$ -Helical Regions of  $\lambda$  Repressor," *Proteins: Structure, Function, and Genetics* 7, no. 4 (1990): 315.

<sup>10</sup>A total of fewer than  $10^{50}$  individual organisms from all species have existed on Earth over the past 3.5 billion years. *E. coli* are about 2 microns in length and 0.2 microns in diameter. With the multiple filamentous structures, a single organism has a volume greater than 0.25 cubic microns. A cubic meter contains  $10^{18}$  cubic microns. Less than  $4 \times 10^{18}$  *E. coli* could be stacked into one cubic meter. A collection of  $10^{50}$  *E. coli* would fill a volume greater than  $2.5 \times 10^{31}$  cubic meters. Earth contains less than  $1.5 \times 10^{18}$  cubic meters of water. A volume of  $2.5 \times 10^{31}$  cubic meters is  $1.666 \times 10^{13}$  times the volume of Earth's water. A collection of  $10^{50}$  *E. coli* could fill 100% of all bodies of water on Earth every day for more than 45 billion years, which is some nine times the age of Earth and three times the age of the universe. As a corollary of interest, a total of fewer than  $10^{50}$  individual organisms from all species have existed on Earth over the past 3.5 billion years.

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### Stem Cell Research: Critiques and Views

I would like to comment to David Siemens' recent letter (*PSCF* 56, no. 4 [December 2004]: 309) critiquing Kristyn Mannoia's "An Evaluation of Three Religious Perspectives on Stem Cell Research" (*PSCF* 56, no. 3 [September 2004]: 216–25). Our ASA area discussion group, which meets periodically to discuss *PSCF* articles, thought Ms. Mannoia's article was excellent. We did not find her arguments foolish, though Timothy Chen said her portrayal of the various positions could have been more nuanced.

Siemens begins by pointing out contra Stanley Hauerwas that "following our intuitions is not an adequate basis for moral standards." Fair enough, but

Mannoia does not say they are. Her reference to intuitions occurs within the larger context of the Wesleyan Quadrilateral and, as she says, "illuminates one facet of truth." Intuition "may suggest that embryos are indeed persons." She makes no other claim for them.

Siemens then attacks Gilbert Meilaender's argument that a person is someone who has a history. This argument, Mannoia says, can be applied to the zygote since it too has a history. Siemens counters that lots of impersonal things have histories. That is true, but the question is one of values, and it is also true that we frequently value impersonal things because of the history attached to them. If we do not value the zygote, it is because we do not value its history, but not valuing its history is the first step in devaluing its personhood. I suspect Mannoia means no more than this.

In this regard, Siemens points out that a large percentage of fertilized ova do not implant. Well, so what? Lots of other people meet tragic deaths. But perhaps a fertilized ova is no person until it implants, or until it reaches a certain stage of development. We simply do not know, so, since we do not know, Siemens' argument is only suggestive, not conclusive.

The same cannot be said of Siemens' reference to Caiaphas' prophecy in relation to personal choice. Caiaphas did not give himself for a sacrifice, he simply—and ignorantly—proclaimed the purposes of God. Therefore Siemens' appeal to the passage has no bearing on the argument addressed.

While it may be true that an ovum stimulated in the right way can produce a viable human being (the reality of Turner females suggests this, something neither Mannoia or Siemens mentions), it is also true that a fertilized egg is the first step to a fully formed human being. Trying to avoid that fact by an appeal to stimulated ova is irrelevant.

Nor does Siemens' attempt to qualify the testimony of the church fathers pass muster. They may not have known precisely when pregnancy occurred, but they spoke in one voice in defense of the unborn when they knew it had occurred.

Siemens then pounces on Mannoia's point that "hES research involves something conceived in the womb." That is ridiculous, he says, since hES uses ova acquired through *in vitro* fertilization. Apparently everyone but Siemens snoozed past that one! Or did they? Since *in vitro* fertilization was unknown until the late twentieth century, the early church would not have addressed it. Plainly Mannoia is trying to apply the principle that a fertilized ovum is the first step toward a fully developed human being to the current situation, and, until very recently, such an ovum would only have been conceived in the womb.

Mannoia purposed to apply Ian Barbour's work to the question of stem cell research. I think she did a credible job. Indeed for an undergraduate she did a remarkable job. I also think it is a shame that David Siemens missed it.

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