

SALVO

Issue 48 Spring 2019

EYES ON TARGET

Clear-Eyed Science [Cosmic Origins]

Nothing to Go On

**Materialist
Explanations for
the Origin of the
Universe Come
Up Empty**

Gary Kemper, Hollie Kemper
& Casey Luskin

Lost & Found

**Four Astronomical
Discoveries of
"Missing Matter"
Support Cosmic
Creation**

Hugh Ross

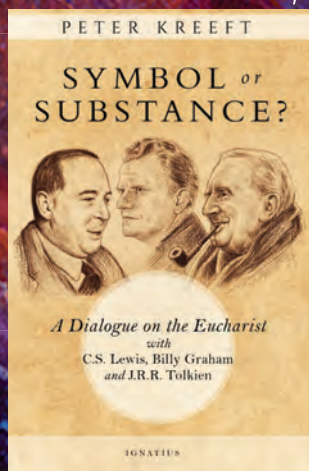
Peripheral Visions

**Science Needs More Than
Science to See Properly**

Terrell Clemmons



WORKS THAT INSPIRE, INFORM & ILLUMINATE



◆ SYMBOL OR SUBSTANCE?

Peter Kreeft

In this engaging fictional conversation, Kreeft gives credible voices to **C.S. Lewis**, **Billy Graham** and **J.R.R. Tolkien** as they discuss one of the most contentious questions in the history of Christianity: Is Jesus symbolically or substantially present in the Eucharist? These widely respected modern Christian witnesses represent three important theological traditions. Graham, a Baptist minister, represents evangelical Protestantism; Lewis, an Oxford professor, was a member of the Church of England. And Tolkien, also an Oxford don, was author of *The Lord of the Rings*, and a Roman Catholic.

SSP . . . Sewn Softcover, \$16.95

"In this wonderful book, Kreeft allows us to listen to an imaginary conversation between Lewis, Tolkien, and Graham on the thorny topic of the Eucharist. Their imaginary presence enlightens our minds on the Real Presence."

—**Joseph Pearce**, Author, *Catholic Literary Giants*

"In our contentious cultural climate, reasonable, friendly dialogue on important issues is a lost art. Kreeft offers a thoughtful, fair-minded exploration of the differing views on the Eucharist among Anglicans, Catholics, and Protestants."

—**Holly Ordway**, Author, *Not God's Type: An Atheist Academic Lays Down Her Arms*



◆ ETERNITY IN THE MIDST OF TIME

Wilfrid Stinissen, O.C.D.

Daring us to see time with new eyes, Stinissen's insight that eternity is written in the depths of our hearts helps us to live in time in a way that leads us deeper into God's joy. We should rejoice that everything around us is great and mysterious and that we can live in eternal wonder. He shows us how to see time from different perspectives and to discover how rich and multifaceted it is. Above all, he demonstrates how we can make use of the tremendous possibilities that time offers to us.

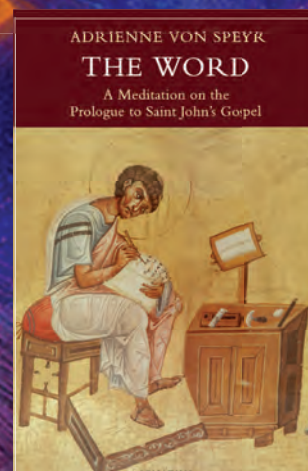
EMTP . . . Sewn Softcover, \$16.95

"The important truths taught here are well served by the simple beauty with which he explains them. The ultimate understanding must be revealed by Christ, who entered chronology from eternity and graciously gave us clues."

—**Fr. George Rutler**, Author, *Calm in Chaos: Catholic Wisdom for Anxious Times*

"Fr. Stinissen's many references to Scripture, his wide-ranging use of saintly thought, and his love for St. Augustine's engagement with the perplexity of passing time make this book a wonderful spiritual experience."

—**Fr. Donald Haggerty**, Author, *The Contemplative Hunger*



◆ THE WORD

A Meditation on the Prologue to St. John's Gospel

Adrienne von Speyr

After writing a four volume series of meditations on St. John's Gospel, the mystic von Speyr presents her reflections on the Prologue to St. John's Gospel. Her insights embrace the whole Christian revelation and life; the Church and the Sacraments, Faith, Love, Hope, and man's attitudes towards revelation, his acceptance and rejection of the Word. This work is spiritual meditation of the highest quality by an extraordinarily gifted woman.

WOPR . . . Sewn Softcover, \$16.95

"Adrienne von Speyr is a theological genius! Her insights into the Prologue of John's Gospel are edifying and fascinating. Her mystical insights are on par with the greatest scripture scholars."

—**Fr. Donald Calloway**, MIC, Author, *10 Wonders of the Rosary*

"If the reader emerges without having been crushed by this work, he will find himself strengthened and exhilarated by a new experience of Christian sensibility."

—**T.S. Eliot**, Renowned Poet and Writer



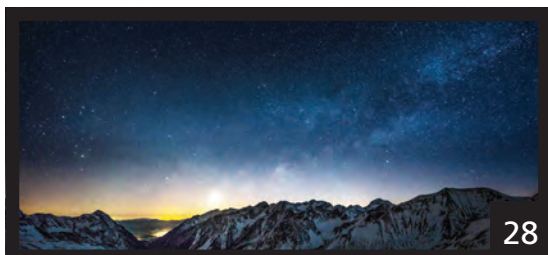
ignatíus press

P.O. Box 1339, Ft. Collins, CO 80522

www.ignatius.com

(800) 651-1531

SALVO



FEATURES

28 Age Doesn't Matter

Both Young & Old Earths Are Way Too Young for Darwin's Idea to Survive ::: by Tom & Elizabeth Siewert

33 Nothing to Go On

Materialist Explanations for the Origin of the Universe Come Up Empty ::: by Gary Kemper, Hallie Kemper, and Casey Luskin

38 Lost & Found

Four Astronomical Discoveries of "Missing Matter" Support Cosmic Creation ::: by Hugh Ross

COLUMNS

Undercover by Terrell Clemmons

18 Sexual Dissent

You're Not Benefiting from the New Sexual Order, Are You?

Biohazards by Heather Zeiger

22 Gene Shopping

Will Selecting Embryos for IQ Be the New Eugenics?



Family Briefing by Nicole M. King

26 Have Sex & Have Nots

Enjoyment & Satisfaction Are Not Found Where Elites Expect Them

Operation ID by Ann Gauger

42 Behe Right or Wrong

A Scrappy Microbiologist Won't Back Down & Advances His Case

Deprogram by Denyse O'Leary

46 Big Artificial Brother

Corporations & Governments Want to Keep an Eye on the Rest of Us



DEPARTMENTS

Opening Salvo by James M. Kushiner

05 Divine in the Details

What You Get May Be What You See

06 Ammo

08 Shrapnel

10 Irony Report

11 Unintelligence Report

Casualty Report by Heather Zeiger

12 Teen Vapors

The Road from Tobacco to
E-Cigarettes, Vaping, Nicotine &
Marijuana



Camouflage by Terrell Clemmons

14 Peripheral Visions

Even Science Needs More Than
Science to Work Properly

Surveillance by Terrell Clemmons

17 My Pregnancy Sucked

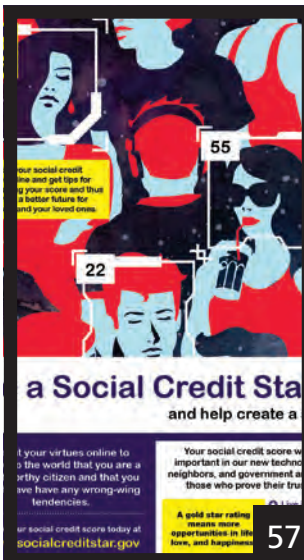
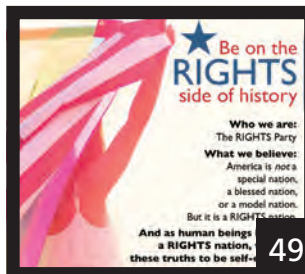
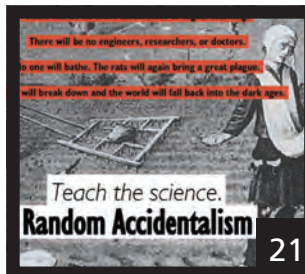
Amelia Bonow, #ShoutYourAbortion
& the Abuse of Other People's Kids

Great Escapes by Terrell Clemmons

50 Shame Free

Ty Wyss: Beloved Son, Gentle
Iconoclast

THE SALVO FAKE ADS



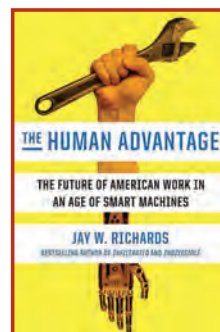
Blips by Terrell Clemmons

53 Help Still

Wanted

A Review of *The Human Advantage: The Future of American Work in an Age of Smart Machines*

by Jay W. Richards



54 Book Blips

Life After Google by George Gilder • *The History of Jihad* by Robert Spencer • *Holy Sexuality and the Gospel* by Christopher Yuan • *The Great Unknown* by Marcus du Sautoy • *The Biggest Lie in the History of Christianity* by Matthew Kelly

55 Film Blips

The Fantasy Makers: J. R. R. Tolkien, C. S. Lewis, and George MacDonald • *For the Love of God: How the Church Is Better and Worse than You Ever Imagined* • *The Call of the Cosmos: What the Universe Reveals About God* • *The Creepy Line* • *Here's My Heart: A Documentary of Surrendering to Freedom*

Parting Shot by John Stonestreet & Roberto Rivera

56 The Faith of Mariano Rivera

The Hammer of God Heads to
Cooperstown

SALVO

Founder Richard A. Moselle

Executive Editor James M. Kushiner

Associate Editor Anita Kuhn

Graphic Designer Jerry Janquart

Senior Editors Thomas S. Buchanan,
Rebecca Hagelin, Casey Luskin,
Marcia Segelstein

Contributors & Columnists

Terrell Clemmons, Michael Cook,
Paige Comstock Cunningham, Ann Gauger,
Nicole M. King, Sean McDowell, Regis Nicoll,
Denyse O'Leary, Hugh Ross, Jonathan Wells,
Cameron Wybrow, Heather Zeiger

Office Manager Carolyn Frève

Intern Samuel Dugan

Editorial Advisory Board

Francis J. Beckwith, Mark Brumley, Paul Copan,
William Dembski, Dinesh D'Souza, Norman Geisler,
Robert P. George, Gary Habermas, Craig Hazen,
Hugh Hewitt, Phillip E. Johnson, Greg Koukl,
Frederica Mathewes-Green, Michael Medved,
Stephen Meyer, J. P. Moreland, Paul Nelson,
Fr. Mitch Pacwa, John Mark Reynolds, Jay Richards,
Fr. Ron Tacelli, John West, W. Bradford Wilcox

salvo n. (säl'vō)

1. A mental reservation
2. An expedient for protecting one's reputation
3. A forceful verbal or written assault
4. A group of shots fired simultaneously for effect

A publication of The Fellowship of St. James (www.fsj.org), *Salvo* is dedicated to debunking the cultural myths that have undercut human dignity, all but destroyed the notions of virtue and morality, and slowly eroded our appetite for transcendence. It also seeks to promote the Christian worldview. The opinions expressed by individual contributors are not necessarily those of the editors or publisher.

SALVO (USPS #025-638) is published quarterly in Spring, Summer, Autumn, and Winter by The Fellowship of St. James at 4125 W. Newport Avenue, Chicago, IL 60641-4009. Periodicals Postage paid at Chicago, IL and at additional mailing offices.

POSTMASTER: Send address changes to SALVO, PO Box 410788, Chicago, IL 60641-0788.

SUBSCRIPTION SERVICES: For new or gift subscriptions, renewals, changes of address, or questions about your subscription, contact: *Salvo* Subscription Services, P.O. Box 2026, Langhorne, PA 19047, 1-800-283-8333. Back issues, missing or damaged copies: Call Publishing Management Associates 1-877-375-7373.

SUBSCRIPTION RATES: U.S.: \$29.99 for one year (four issues); \$54.99 for two years (eight issues). Canada: \$36.99 (U.S.) for one year; \$68.99 (U.S.) for two years. Other foreign: \$41.99 (U.S.) for one year; \$78.99 (U.S.) for two years. **Special rate for students** and those on reduced incomes: \$15.99 for one year. Digital only subscriptions are also available: \$15.99 for one year. Bulk rates are available. Visit salvomag.com for details.

Copyright © 2019, The Fellowship of St. James. All rights reserved. No part of this magazine may be reproduced in any form without permission.

Salvo 48 Image Credits—All images © Getty Images except for the following: pp. 33, 34, 35, 36, 40, 41, 43, 56—Wikimedia Commons; p. 39—Hugh Ross; p. 40—Sloan Digital Survey

Published by: The Fellowship of St. James
P.O. Box 410788, Chicago, IL 60641
Subscription Services: 1-800-283-8333
Email: editor@salvomag.com • www.salvomag.com

Salvo Partner Organizations





Spring 2019



Terrell Clemmons (pp. 14, 17, 18, 50, 53) earned a B.S. in computer science from Clemson University and worked in computer software for several years before graduating to full-time marriage, motherhood, and household management. She lives in Indianapolis, Indiana, and writes on apologetics and matters of faith.

Ann Gauger (p. 42) is the Director of Science Communication at the Center for Science and Culture at the Discovery Institute and a senior research scientist at Biologic Institute.



Gary Kemper (p. 33) had a career as an aerospace systems analyst before moving on to the entertainment industry and becoming a writer. A former skeptic of ID, he became a strong supporter after becoming aware of the enormous amount of academic and media misinformation on the subject.

Hallie Kemper (p. 33) is a longtime homeschool educator in California, who has taught classes in ecology, botany, and intelligent design with multiple homeschool education groups in the greater Los Angeles Area.



Nicole M. King (p. 26) is the managing editor of the Howard Center's quarterly journal, *The Family in America: A Journal of Public Policy*.

Anita Kuhn (pp. 6, 8, 10) is the associate editor of *Salvo* and *Touchstone* magazines.



James M. Kushiner (p. 5) is the executive editor of *Salvo* and *Touchstone* magazines.

Casey Luskin (p. 33) was trained as both a scientist and an attorney, having earned bachelor's and master's degrees in earth sciences and a law degree. In 2001, he cofounded the Intelligent Design and Evolution Awareness (IDEA) Center, helping high school and college students learn about ID.



Denyse O'Leary (p. 46) is a Canadian journalist, author, and blogger. She blogs at *Blazing Cat Fur*, *Evolution News & Views*, *MercatorNet*, *Salvo*, and *Uncommon Descent*.

Roberto Rivera (p. 56) is a senior fellow of the Colson Center for Christian Worldview and a columnist for BreakPoint.

Hugh Ross (p. 38) is an astrophysicist and the founder and president of the science-faith integration ministry Reasons to Believe (RTB) (www.reasons.org).



Tom Siewert (p. 28) is a (mostly) retired metallurgist. He received a B.S. in math and physics, before moving into materials science, then finishing with a Ph.D. in metallurgy. He is now spending some free time in exploring some of life's generally accepted, but poorly supported ideas. For topics in biology, it helps a lot to have a wife who knows biology.

Elizabeth Siewert (p. 28) earned a B.S. in math and chemistry. She worked in the field of molecular biology at the University of Colorado for 15 years, carrying out research in genetics, where she learned a lot about biological systems. After her children were grown, she went on to earn a Ph.D. in biostatistics, thus combining her love for both math and biology. Her interest is in quantitatively modeling biological systems.



John Stonestreet (p. 56) is President of the Chuck Colson Center and co-host of its BreakPoint radio commentaries.

Heather Zeiger (pp. 12, 22) has an M.S. in chemistry from the University of Texas at Dallas, and an



M.A. in bioethics from Trinity International University. She resides in Dallas and currently works as a freelance science writer and educator.

Read all of your favorite *Salvo* authors online: salvomag.com

SALVO

**THE
NEW
WEBSITE**

Hearts at Rest

LGBTQ+

An essay on LGBTQ+ from *Salvo* #43 in *Understanding*
by Terrell Clemmons

**Untangling Attractions, Addictions
& Other Restless Loves**

A homosexuality was becoming more the rage in the 1980s, New Zealand journalist Brian Whitehead didn't know what to think about it all. As a Christian, she was even more confused because, if God said homosexuality was wrong, why didn't he just answer the prayers of homosexuals and change them when they asked? Nothing about it made sense to her, and no one in the church seemed to have any answers either.



Divine in the Details

What You Get May Be What You See

by James M. Kushiner

How you see the world depends on how you look at it. And what you think of the world depends on what you think you see when you look at it. Consider, for example, what a materialist sees when he looks at the bald fact of the universe: he sees something that just *is* and was not created (i.e., by a Creator), something that just came into being either out of nothing and nowhere or out of an infinitely regressing “multi-universe” (see “Nothing to Go On,” p. 33).

Another materialist looking at the cosmos in more detail sees only atoms and particles, bits of matter in motion: 98 percent hydrogen and helium atoms (see Figure 2, p. 38), plus some heavier elements, randomly coalescing into stars, planets, and something called life.

Another materialist who is also a biologist looks closely at life, a minuscule speck in the material universe, and sees it as a feature that has emerged by chance from interactions between particles of matter following chemical and physical laws. If he notices any signs of design, he chalks them up to mere appearances.

To the materialists, the origin of the universe, its current features, and life itself have no purpose, meaning, or spiritual significance. The idea of spiritual significance is rejected by materialists as fantasy. They vehemently deny what Paul the Apostle claims in Romans 1:20: God’s “invisible attributes, namely, his eternal



power and divine nature, have been clearly perceived, ever since the creation of the world, in the things that have been made.”

Paul doesn’t stop there. A quotation from his sermon to the Athenians adds another dimension: God “gives to all life, and breath, and all things,” and is “not very far from us,” being the One in whom “we live and move and have our being” (Acts 17:25–28). There can be no place where God is not near.

God is not simply the most Supreme Being among other beings; he is the cause, or ground, of existence itself. He revealed himself to Moses as “I am that I am.” Just as there can be no being apart from him, there can be no thought or mind that is hidden from his direct sight. The atheist who thinks otherwise is like the toddler who

thinks we can’t see him when he closes his eyes.

Unfortunately, many who accept Paul’s gospel message are not informed by his teaching about the natural order. Under the influence of secularist education, they assume that the universe and all matter are entirely separate from God, who is an unnecessary hypothesis for its study.

Too many Christians have surrendered science to the materialists, being content to hold their religious beliefs as private opinions that have little to do with scientific discoveries. They’re missing out on exciting evidence of creation, forfeiting signs of God’s “eternal power and divine nature.”

To maintain intellectual maturity, we must refuse to look at the world through secular lenses that filter out any signs of God’s work or purpose. From the cosmos to the smallest living cells,

nature is marked by signs of intelligence. Indeed, the word “cosmos” is from the Greek and means *order or pattern*, a world. It is not a random collection, but ordered to an end—by Someone.

So read closely the articles on the cosmic picture—the clear evidence of the Big Bang (p. 33 & p. 38)—and the small picture—the facts about life that can’t be explained without design (p. 28 & p. 42). Reading them may help you see in material creation the meaning from which materialists wish to distract you. This may help confirm what Paul insisted is true and lead you to thanksgiving. By broadening what you see when you look at even the details of life, you just might increase what you get out of the life you’ve been given. *Salvo* is here to help you do that. ☺

Africans Nix Marie Stopes

For years, abortion giant Marie Stopes International (MSI) has been accused of performing illegal abortions in Africa. Last fall, Kenya's government held a formal inquiry, at which an MSI doctor admitted that abortions were offered to girls without parental guidance and that, in general, MSI was willing to give an abortion to any woman who asked for one, even though Kenyan law permits abortion only when the life or health of the mother is at risk. Marie Stopes was also found to be advertising its abortion services in an "erroneous and misleading" manner and to be

targeting minors with its advertising. One MSI clinic was caught giving contraceptive injections to underage girls, which is also illegal in Kenya. As a result of these findings, Kenya's medical board ordered Marie Stopes to "immediately cease and desist offering any form of abortion services in all its facilities within the republic."

Meanwhile in Niger, the government shut down two Marie Stopes facilities for committing illegal abortions. Niger only permits abortions deemed necessary to save a mother's life, but MSI facilities in two cities, Niamey and Maradi, were found to be



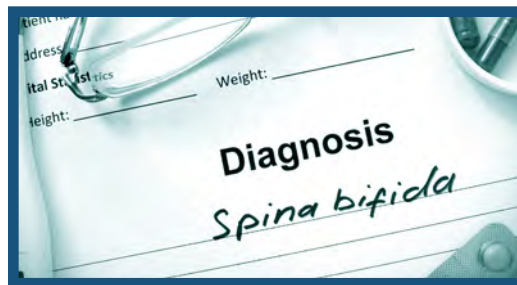
providing them on a "voluntary" basis.

Marie Stopes has also faced allegations of illegal activities elsewhere in Africa. It was banned in Zambia in 2012 for performing illegal abortions, and it is also being investigated in Tanzania. •

(Sources: https://c-fam.org/friday_fax/kenya-bans-marie-stopes-performing-abortions; lifesitenews.com/news/niger-shuts-down-marie-stopes-facilities-for-committing-illegal-abortions)

Surgery Before Birth

British couple Georgia Axford and Tyler Kelly learned that their unborn daughter had spina bifida when they went for a 20-week ultrasound. The condition, in which the neural tube fails to develop properly and leaves parts of the spinal cord and spinal nerves exposed, can cause neurological defects, including paralysis, and in some cases is fatal. The family traveled to Germany, where Dr. Thomas Kohl, guided by a camera inserted into the womb, performed



an operation in which he placed a collagen patch over the exposed nerves. Six weeks later, Georgia went into early labor, and baby Piper-Kohl Kelly

was born on July 28, 2018, at just 30 weeks—and apparently perfectly healthy. Doctors will not know if Piper's prenatal surgery was a complete success until she starts walking, but for now, they cannot find anything wrong with her. Piper's mother said, "I would honestly recommend the surgery

to anyone who is in a similar boat to us." She added, "It was a bit scary at the time and was a lot of money but it was absolutely worth it." •

(Source: liveaction.org/news/spina-bifida-healthy-surgery-womb)

Christian Adoption Returns

South Carolina's Miracle Hill Ministries had been placing children with Christian parents for 30 years

without a problem until right before Obama left office, when the adoption ministry came under fire for its policy of putting children with Bible-believing couples. Obama's regulations meant that Miracle Hill wasn't

eligible to apply for grants from the Department of Health and Human Services. Fortunately, the ministry had an advocate in South Carolina Governor Henry McMaster, who

began seeking a waiver for the group in February 2018. In late January 2019, after 11 months of waiting, Miracle Hill received the waiver from HHS, to the cheers of Governor McMaster and pro-family advocates around the country.

Meanwhile, Representative Mike Kelly of Pennsylvania introduced a bill in Congress to protect faith-based groups on a national scale. While celebrating the outcome for Miracle Hill, Kelly noted that "there is still an urgent need to fully protect all faith-based adoption and foster care agencies in every corner of our country from unfair discrimination by states and localities." •



(Source: frc.org/updatearticle/20190124/waiving-goodbye)



Head Start Bad Start

Over the past 20 years, children have been starting school at ever-younger ages, and have been subjected to higher academic expectations than ever before. For example, in 1998, 31 percent of teachers expected children to learn to read in kindergarten; by 2010, 80 percent of teachers expected this. Over roughly the same period, from 2003–2004 to 2011–2012, the number of children diagnosed with ADHD increased by 42 percent, and one-third of those diag-

noses were made on children under age six. Writer Kerry McDonald drew the obvious conclusion: “It should be no surprise that as we place young children in artificial learning environments, separated from their family for long lengths of time, and expect them to comply with a standardized, test-driven curriculum, it will be too much for many of them.”

A study by Harvard Medical School researchers published in November 2018 confirms McDonald’s conclusion. It found that children who start school as among the youngest in their grade are 30 percent more likely to be diagnosed with ADHD than their

older peers. Yet all that is really wrong with most of these kids is that “they happen to be relatively immature compared to their older classmates in the early years of elementary school.” Hence, large numbers of kids are being overdiagnosed with, and therefore overtreated for, ADHD.

For parents who need support in pushing back against education bureaucrats who insist on subjecting their children to unrealistic academic and behavioral standards or who prescribe drugs for a disorder that often only exists within a school context, this study should provide ammunition. •

(Source: <https://fee.org/articles/harvard-study-shows-the-dangers-of-early-school-enrollment>)

It’s Good to Study the Bible!

Legislation is pending in Florida, Indiana, Missouri, North Dakota, Virginia, and West Virginia that would encourage public schools to offer elective courses on the Bible. North Dakota state Rep. Aaron McWilliams said that his state’s bill is meant to recognize that “the Bible is an integral part of our society and deserves a place in the classroom.” Groups like the Congressional Prayer Caucus Foundation, the National Legal Foundation, and WallBuilders endorse such efforts to pass biblical literacy bills, and in late January, they were joined

by President Trump, who tweeted that it was “great” to give students “the option of studying the Bible.”

Critics immediately attacked Trump for endorsing measures that would violate the “separation of church and state,” as their mantra has it, but such bills are, in fact, perfectly constitutional and were common in the Founding era. Supporters of the proposed courses stress that they would be optional, and argue that students of all faiths should have an understanding of how biblical principles shaped the thinking of America’s Founding Fathers. •



(Source: lifesitenews.com/news/liberals-outraged-as-trump-endorses-bible-literacy-classes-in-public-school)

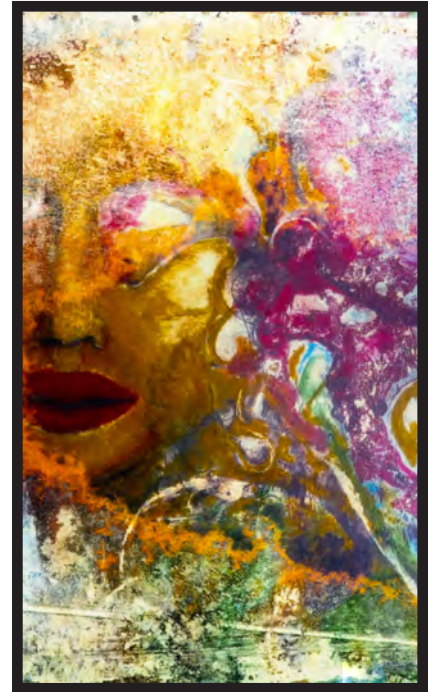
Rapid Onset Parental Crisis

Rapid onset gender dysphoria, or ROGD, is the term given by Brown University researcher Lisa Littman to the phenomenon of young women suddenly seeking sex “reassignment” as males. Like suicide, cutting, and bulimia, ROGD is a social contagion, which the Oxford Dictionary of Psychology defines as “the spread of ideas, attitudes, or behaviour patterns in a group through imitation and conformity.” But, as Abigail Shrier wrote in the *Wall Street Journal* in January, unlike other social contagions, ROGD “gets full support from the medical community. . . . The standard for dealing with teens who assert they are transgender is ‘affirmative care’—immediately granting the patient’s stated identity.”

This creates a desperate situation for parents who want to save their

daughters from subjecting themselves to treatments that will mutilate them and render them infertile. Shrier writes that “nearly every force in society is aligned against these parents”: therapists and psychiatrists, campus counselors, clinics (some of which dispense hormones on the first visit)—even the law, which in some places prohibits efforts at changing a patient’s “gender identity,” thus, Shrier notes, “effectively threatening counselors who might otherwise dissuade teens from proceeding with hormone treatment or surgery.” “You can’t imagine what it’s like to have the entire educational/med/psych/media world fighting against your parental values and common sense,” said one distraught parent.

One of the few places where families can turn for help with ROGD is the support network 4thWaveNow (<https://4thwavenow.com>). •



(Source: lifesitenews.com/news/parents-beware-rapid-onset-gender-dysphoria-a-social-contagion-among-girls)



Germany ♥ Child Brides

The Federal Supreme Court of Germany has ruled that it is unconstitutional for Germany to invalidate child marriages that were lawfully conducted abroad. The case leading to the ruling concerned a 21-year-old Syrian man who married a 14-year-old girl in Syria in February 2015 and then migrated to Germany with his wife that August. Upon arrival in Germany, the couple was separated, and the girl

placed in a welfare facility for underage female refugees. Her husband filed suit to reclaim his wife, and although a family court initially ruled against him, an appeals court overturned that ruling in 2016. That same year, the German Interior Ministry revealed that “1,475 married children—including 361 children under the age of 14—were known to be living in Germany.” Alarmed, the German parliament passed legislation setting the age of consent for marriage in Germany at 18 years and nullifying all marriages contracted when a partici-

pant was under 16. But in December 2018 the Federal Supreme Court ruled that law unconstitutional.

Bavarian lawmaker Winfried Bausback denounced the court’s decision, saying, “Germany cannot, on the one hand, be against child marriages internationally, and on the other hand be for such marriages in our own country. The best interests of the child cannot be compromised.” Commentator Andreas von Delhaes-Guenther wrote, “In the end, it is a question of principle. . . . We must say that in Germany, German law applies to all.” •

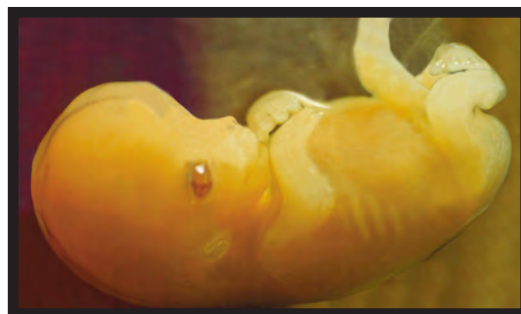
(Source: dailywire.com/news/39685/german-supreme-court-child-marriage-constitutional-paul-bois)

Embryo Trade Market

Last fall, under the pseudonym Lisa, a married actress from Brooklyn posted an appeal to several Facebook groups, saying: "Hello, we have been trying to give my child a sibling for three years . . . we want to complete our family with a son. We have a great quality female embryo. Would you like to consider a trade?" She added that the "donor egg [is] Italian" and the sperm "English/Irish Yale educated."

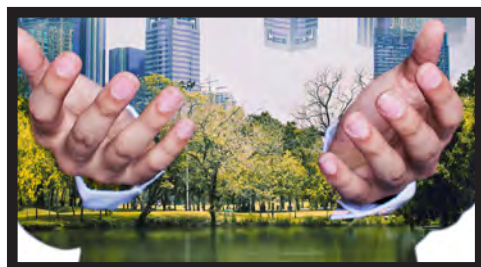
Lisa conceived her first child, a son, through IVF and wanted another

boy, but after spending more than \$45,000 on several more cycles of IVF, which resulted in the creation and loss (or discarding) of several human beings, she and her husband were left with one female embryo. After spending \$12,000 on a final, unsuccessful round of IVF, the couple decided to offer the female embryo to someone with a male one. "I made up my mind as a reaction to losing the \$12,000. Now I have a commodity—something I can leverage," said Lisa.



Although moderators on the Facebook groups received complaints about her post, Lisa actually received and was reportedly considering several offers. •

(Source: spuc.org.uk/news/news-stories/2018/november/woman-wants-to-swap-female-embryo-for-boy)



Human Fertilizer

In 2014 Katrina Spade founded the Urban Death Project (since renamed Recomposed) to promote the

composting of human remains as an eco-friendly practice that "gently converts human remains into soil." Washington State Democratic senator Jamie Pedersen likes Spade's idea so much that he decided to introduce a bill to legalize the composting of human corpses. "People from all over the state who wrote to me are very excited about the prospect of becoming a tree or having a different alternative for themselves," Pedersen claimed.

Spade claims that composting "would be meaningful and appropri-

ate for human beings," but far from treating a deceased person's body with dignity and respect, it is a way of *using* the human body, of "treating it as if it possesses no more intrinsic worth than fertilizer," as Laurie Higgins of the Illinois Family Institute wrote. John Horvat of the American Society for the Defense of Tradition, Family and Property said that if human "recomposition" becomes acceptable, it will signal the "overturning [of] those 'unwritten and unchanging laws' . . . by which people have sensed the need for reverencing the dead from time immemorial." •

(Sources: <https://illinoisfamily.org/faith/composting-humans>; nbcnews.com/news/us-news/washington-could-become-first-state-legalize-human-composting-n952421)

Masculinity Toxic for APA

In January, the American Psychological Association (APA) issued new "Guidelines for Psychological Practice with Boys and Men." The main message conveyed in the 16,000-word document is that "traditional masculinity . . . is, on the whole, harmful." The document's vocabulary is a combination of technical medical terminology and social-justice-warrior jargon. An example of the latter is the term "cisgender," which the APA uses to refer to people whose "gender identity" is aligned with their biological sex, as if that were odd or notable. Also, society's "heteronormativity" is

attacked for making "false" assumptions about the nature of males, and is blamed for creating "minority stress" among "gay, bisexual, transgender, and gender-nonconforming individuals" who might feel "pressured to adopt dominant masculine roles."

After experiencing backlash over the guidelines, the APA backedpedaled a bit, but it remains clear that the organization endorses the view that masculinity is toxic. •



(Source: lifesitenews.com/blogs/american-psychological-association-demonizes-masculinity-endangers-boys-wit)

Gender Theory Hurts Evolution!

Penn State evolutionary biologist Colin Wright published an article in the online magazine *Quillette* in December in which he argued that the slogan, "Gender is a social construct," denies Darwinism. He then went on to lament:

Back when evolution was under attack from proponents of Biblical Creation and Intelligent Design, academic scientists were under no pressure to hold back criticism. This is because these anti-evolution movements were almost exclusively a product of right-wing evangelicals who held no power in academia. Now we have a much bigger problem, because evolution denialism is back, but this time it's coming from left-wing activists who do hold power in academia. This makes the issue both harder to ignore and harder to remove. Social justice and hyper-militant trans activism now seems to act as a kind of anti-universal acid, and not merely a strong buffer solution. While the universal acid of evolution eats through old cherished beliefs and replaces them with deeper understanding and a clearer picture of reality, the anti-universal acid of social justice ideology is a recklessly destructive force, aiming to abolish scientific truth and replace it with relativistic postmodern nonsense. . . .

(Source: <https://evolutionnews.org/2018/12/academic-freedom-sweeping-up-the-shards>)

NY♥Abortion!

On January 22, New York Governor Andrew Cuomo ordered that the spire of the One World Trade Center be lit pink to celebrate the passage of a radical new abortion law in the state. This prompted a number of comments worth considering:

- The new Trade Center was built on the site where about 3,000 Americans lost their lives on 9/11. On January 22, it was lit up to celebrate the 3,000 American lives lost to abortion every day.
- On the site where a 9/11 memorial commemorates the eleven unborn babies killed by terrorists that day, Cuomo celebrated those killed by abortionists every day.
- Gov. Cuomo, a purported Catholic, announced last fall that, "in solidarity with Pope Francis," he was going to end the death penalty in New York. He is opposed to giving lethal injections to convicted murderers, but celebrates giving them to unborn babies. When the spire was lit pink, it resembled the needle used to supply that lethal injection.
- Before passage of the new law, New York's abortion rate was already double the national average. In the three years between 2012 and 2014, there were 20 percent more abortions than live births in the state. Yet, Gov. Cuomo thought it necessary to open the door to even more abortions.

Nick Searcy, director of the *Gosnell* movie, added these observations:

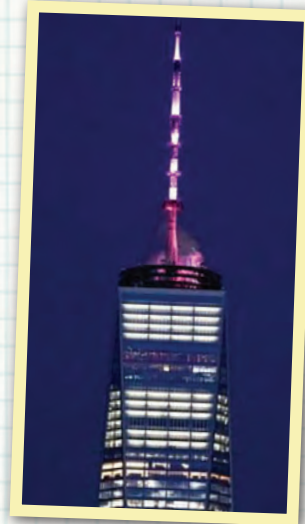
[Kermit Gosnell] was convicted of killing breathing infants that had already been born. It is now legal in New York to kill an infant that survives an abortion. [Specifically, the law revokes the requirement that a second physician be present during late-term abortions, making it easier for a baby who survives the procedure to be killed without repercussions.]

He was convicted of allowing untrained and unlicensed non-medical personnel to perform abortions. It is now legal in New York for non-physicians or any "health professionals" (undefined) to perform abortions.

He was convicted of performing at least 21 late-term abortions past the legal limit of 24 weeks. It is now legal in New York to terminate a pregnancy up until the due date. . . .

Gosnell has consistently maintained that he was innocent, ahead of his time, and would someday be exonerated. He was right. He was just a few years early and in the wrong city. The State of New York has just exonerated him.

(Sources: hli.org/2019/01/the-scandal-of-cuomo-and-new-yorks-horrific-abortion-law/; townhall.com/columnists/nicksearcy/2019/01/29/gosnell-2-the-exoneration-n2540412)



Right to Life Includes Abortion

The “right-to-life” clause in an important UN human rights treaty must now include a right to abortion. So said a UN committee charged with monitoring compliance with the International Covenant on Civil and Political Rights. In November 2018, the committee said governments must decriminalize abortion in all circumstances and “remove existing barriers that deny effective access by women and girls to safe and legal abortion including barriers caused as a result of the exercise of conscientious objection by individual medical providers.”

(Source: https://c-fam.org/friday_fax/un-committee-says-right-life-means-right-abortion)



Abortion Option for Genders

In the Introduction to “The Medical Management of Abortion,” released by the World Health Organization (WHO) in January 2019, the authors stated that individuals who can become pregnant include “women, girls and those with varying gender identities,” and that abortion information should be provided in a way that promotes “their health and human rights, including sex and gender equality and non-discrimination.”

(Source: https://c-fam.org/friday_fax/world-health-organization-says-men-can-get-abortions)

Sex by Anatomy? Unscientific!

Last fall the U.S. Department of Health and Human Services (HHS) produced a memo proposing to legally establish the sex of an individual based on the person’s anatomy, supplemented in cases of ambiguity by genetic tests. Such a method of deciding which sex to put on a birth certificate would be “clear, grounded in science, objective and administrable,” according to the memo—but not according to *Nature* magazine, which said the proposal was “a terrible idea that should be killed off” because “it has no foundation in science.”

(Source: [nature.com/articles/d41586-018-07238-8](https://www.nature.com/articles/d41586-018-07238-8))

Ice Blocks Airlifted to UK Melt!

Last December, former New York mayor Michael Bloomberg had several half-ton blocks of ice flown from Greenland to London, where they were put on public display. Since the temperature in London was in the 40s at the time, the ice started to melt, thus showing people how global warming was affecting the polar ice caps and how important it was to reduce CO2 emissions to mitigate the warming. Only problem was that, in the course of warning people against emitting CO2, Bloomberg emitted tons of it. According to MyClimate.org, the “emissions cost” of flying one average-sized person from Nuuk, Greenland, to London is 1.2 metric tons of carbon. Bloomberg’s plane was carrying several thousand-pound chunks of ice—you do the math.

(Source: [dailywire.com/news/39437/michael-bloomberg-flew-giant-blocks-ice-london-emily-zanotti](https://www.dailywire.com/news/39437/michael-bloomberg-flew-giant-blocks-ice-london-emily-zanotti))

Abortion Not a Cause of Death

In early January, multiple outlets reported that more than 41 million induced abortions had been committed worldwide in 2018, making abortion the leading cause of death in the world last year. Snopes.com, which bills itself as “the internet’s definitive fact-checking resource,” took issue with that characterization. “Stating that abortion is the ‘leading cause of death’ worldwide . . . is a problematic pronouncement . . . which is at odds with the scientific/medical world,” Snopes’s Bethania Palma wrote. According to her reasoning, since fetuses are not legally recognized persons, and since abortion is a legal procedure, it is wrong to call abortion a cause of death—even though it does, in fact, cause death.

(Source: lifesitenews.com/news/snopes-claims-its-problematic-to-call-abortion-a-cause-of-death-rather-than)

Teen Vapors

The Road from Tobacco to E-Cigarettes, Vaping, Nicotine & Marijuana

by Heather Zeiger

Cigarette use is at an all-time low, thanks to aggressive anti-smoking campaigns. But a new trend has emerged in its place—vaping. Estimates vary, but there are probably between 6,000 and 15,000 “vape shops” in the U.S.¹ By comparison, there were 13,172 Starbucks shops in 2016.

Vaping uses electronic cigarettes (also known as e-cigarettes), a device that heats a nicotine-containing liquid to the boiling point so the vapors can be inhaled. Vaping is marketed as a safer alternative to smoking combustible cigarettes and as a way to help smokers eventually quit. While safer than smoking combustible cigarettes, the practice of vaping is too new for us to know its long-term effects. What is known is that nicotine is not safe for teen users and is highly addictive; thus, vaping is a way for teens to get hooked on nicotine.

E-cigarettes and other nicotine-containing products are

age-restricted (18 years or older in most states), yet teen vaping increased 900 percent from 2011 to 2016.² Teen use of e-cigarettes increased so much between 2017 and 2018 that the FDA released the Centers for Disease Control data on teen use in 2018 ahead of schedule, and cited teen vaping as a public health concern.³

The largest e-cigarette vendor, Juul, has been reprimanded by the FDA for targeting teens by promoting teen-friendly flavors such as bubble gum, popcorn, and Cheerios.⁴ Teens can discreetly use e-cigarettes at school because the vapor and odor disappear quickly and e-cigarette holders can look

like thumb drives or key chains. Additionally, liquids containing marijuana are also available in places where that drug is legal, but, as with nicotine-containing products, anything can be bought online without verifying one's age.

As of this writing (mid-January), e-cigarette companies are no longer allowed to sell flavors other than tobacco and menthol at convenience stores (but not vape shops), and they must revamp their age-verification process. Notably, flavored combustible cigarettes (other than mint and menthol) were banned in 2009.⁵

>>>



Use of Tobacco Products:

15.5%	Adults (18+) who currently smoke cigarettes (a drop from 20.9 percent in 2005) ⁶
90%	Current cigarette smokers who first tried smoking before age 18
7.2%	Middle-school students who used any tobacco product in 2018 (down slightly from 7.5 percent in 2011) ⁷
27.1%	High-school students who used any tobacco product in 2018 (up from 24.2 percent in 2011 and after decreasing to 19.6 percent in 2017)

Use of Marijuana:

Per a 2018 CNN report:⁹

24%	Students who had used marijuana in any form in the previous year.
4.5%	Middle-school students who have vaped marijuana
12.4%	High-school students who have vaped marijuana

Per a survey of over 10,000 teenagers in 2013/2014 and 2014/2015:¹⁰

25%	Teens who began smoking or vaping marijuana after vaping nicotine products (compared to 8 percent of teens who did not vape before smoking pot)
2.7x	Kids who start vaping in middle school are 2.7 times more likely to try marijuana than their non-vaping peers. They are 2.5 times more likely to become heavy marijuana users (at least once per week).
1.6x	Kids who start vaping in high school are 1.6 times more likely to try marijuana than their non-vaping peers.

THE NUMBERS

Use of E-Cigarettes:⁸

Middle-School Students	High-School Students	E-cigarette users
5%	20%	
48%	78%	Increase in the use of e-cigarettes from 2017 to 2018.
56%	73%	Users who said they used flavored liquids when they vaped.

Notes

1. "E-Cigarette Use Among Youth and Young Adults: A Report of the Surgeon General" (2016), 151: https://e-cigarettes.surgeongeneral.gov/documents/2016_SGR_Full_Report_non-508.pdf.
2. Ibid., p. vii.
3. FDA News Release (Nov. 15, 2018): [fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm625917.htm](https://www.fda.gov/NewsEvents/Newsroom/PressAnnouncements/ucm625917.htm).
4. *The Washington Post* (Oct. 2, 2018): [washingtonpost.com/health/2018/10/02/fda-seizes-juul-e-cigarette-documents-surprise-inspection-headquarters/?noredirect=on&utm_term=.7bf0f270f966](https://www.washingtonpost.com/health/2018/10/02/fda-seizes-juul-e-cigarette-documents-surprise-inspection-headquarters/?noredirect=on&utm_term=.7bf0f270f966).
5. Reuters (Sept. 22, 2009): [reuters.com/article/tobacco-fda/u-s-fda-in-first-tobacco-action-bans-flavors-idUSN2236998020090922](https://www.reuters.com/article/tobacco-fda/u-s-fda-in-first-tobacco-action-bans-flavors-idUSN2236998020090922).
6. CDC Fact Sheet on Smoking & Tobacco Use (figures as of 2016): [cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm).

[gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm).

7. CDC Morbidity and Mortality Weekly Report (Nov. 16, 2018): [cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w](https://www.cdc.gov/mmwr/volumes/67/wr/mm6745a5.htm?s_cid=mm6745a5_w).

8. Ibid.; CDC fact sheet on Youth and Tobacco Use (figures as of 2017): [cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index.htm).

9. CNN (Sept. 17, 2017): [cnn.com/2018/09/17/health/ecigarettes-vaping-cannabis-study/index.html](https://www.cnn.com/2018/09/17/health/ecigarettes-vaping-cannabis-study/index.html).

10. Dennis Thompson, "Could Vaping Lead Teens to Pot Smoking?", *HealthDay* (April 23, 2018): <https://consumer.healthday.com/cancer-information-5/electronic-cigarettes-970/could-vaping-lead-teens-to-pot-smoking-733155.html>.



Peripheral Visions

Even Science Needs More Than Science to Work Properly

by Terrell Clemmons

Jon Headley has a confession to make. "I'm a 30-year-old man, but until a few years ago, I had no real understanding of the theory of evolution."

"Ah," the ex-Christian continues after relieving himself of this confessional burden, "it feels good to get that off my chest." And with that, the musician and producer expounds upon his religious deconversion in a lengthy Medium.com essay titled "How I Learned to Trust Science: On the difference between dogma and evidence" (<https://medium.com/story/religion-the-scientific-method-858ceddb5988>). "I was taught that capital-S Science was our enemy," Headley writes, and that there were "three big lies that Science had introduced to the world [that were] especially dangerous." These are the Big Bang, an old earth, and evolution. As a kid, he was ready to argue with any science teacher because "I was sure of what I believed."

But in truth, he now confesses, "I didn't know s***."

The essay starts out with a potentially helpful dismantling of what might be called "packaged" religion—that is, religious teachings pre-assembled somewhere up the hierarchy and disseminated with the expectation that they will be accepted on church authority. As he explains his upbringing, Headley paints a picture of insulated social groupthink, with the whole package propped up by confirmation bias.

He brings this up to compare and contrast "two foundational ways of looking at the world." He was raised to look at the world by way of religion, he says, which is based on authority, dogma, and assumptions. The problem with this way, he continues, "was that I

had been handed a set of beliefs, and I had never questioned them fully for myself." By contrast, he now looks at the world by way of the scientific method, the key idea of which goes like this: "*Any hypothesis about the world must be tested and proved by repeated experiment.*"

He's right about the problem he identifies with his first way, but sadly, after starting out so well, his second way leaves him in a place that is arguably worse. This is because, while the key principle of proving hypotheses by experimentation is reasonable and works well in the *practice* of science, it's highly problematic when taken as the *primary* way of knowing truth about the world—which is what he has done.

Headley's second way is what's called scientism, and he is far from the only one succumbing to it. In *Scientism and Secularism: Learning to Respond to a Dangerous Ideology* (Crossway, 2018), J. P. Moreland defines *scientism* as "the view that the hard sciences—like chemistry, biology, physics, astronomy—provide the only genuine knowledge of reality." Whether expressed in the *strong* form, which says that science and its methods provide the *only valid route* to knowledge, or in some weaker form that al-

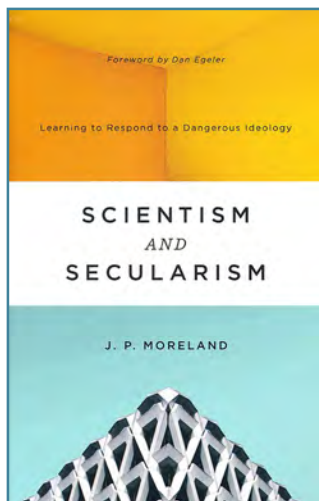
lows other ways of knowing to have some lesser validity (as long as they bow to science), scientism has become a part of the pseudo-intellectual air we breathe. I say “pseudo” because scientism isn’t intellectual, but is rather, at its very core, intellectually *unsound*.

From the Ivory Towers to the Streets

We’ll return to that point momentarily, but first let’s look at a few scenarios that demonstrate how deeply this assumption of scientism has become embedded in the substrate of public life:

- **In academia:** Sir A. J. Ayer, knighted professor of philosophy at Oxford University, taught that a proposition can be meaningful only if it’s true by definition (for example, “ $A = A$ ”) or if it’s empirically verifiable, meaning testable by the scientific method. This is the reigning paradigm in Western education.

- **In government:** Robert B. Reich, who served under Presidents Ford, Carter, Clinton, and Obama, said in 2004 that “the greatest conflict of the 21st century [will be] between those who believe in science, reason, and logic and those who believe that truth is revealed through Scripture and religious dogma.” Reich’s



prognostication reflects the false narrative that knowledge through science and knowledge through revealed religion are inherently in conflict.

- **On the streets:** The inaugural annual March for Science took place on Earth Day 2017, with an encyclopedic display of smarmy slogans such as, “Science is our Future,” “Science is Real,” “Defiance for Science” (complete with the raised-fist symbol for Communism), and “Science is the most precious thing we have.”



Scientism has become a part of the pseudo-intellectual air we breathe. I say “pseudo” because scientism isn’t intellectual, but is rather, at its very core, intellectually *unsound*.

Celebrity scientist Neil de-Grasse Tyson especially tipped his scientistic hand when he was asked about the politics of climate change in the era of Trump. He defended the authority of science to the point of expressing his exasperation with those who resist bowing to it: “What will it take for people to recognize that a community of scientists are learning objective truths about the natural world?” he asked CNN anchor Fareed Zakaria.

An emergent scientific truth, for it to become an objective truth, a truth that is true whether or not you believe in it, it requires more than one scientific paper. It requires a whole system of people’s research all leaning in the same direction, all pointing to the same consequences.

Do you hear the intellectual imperialism in that little sermonette? The high priesthood of

science (with himself as figure-head, of course) learns and then dictates to the rest of us what is objectively true. (This from a man who also wrote, “After the laws of physics, everything else is opinion,” but I digress.)

Hollywood got the memo. In the wake of the 2017 hurricane season, actress Jennifer Lawrence said it’s “scary to know—it’s been proven through science that human activity—that climate change is due to human activity and we continue to ignore it and the only voice that we really have is through voting.” Has Ms. Lawrence tested and proved the climate catastrophe hypothesis by experiment? No, as Derek Hunter clarifies in *Outrage, Inc. How the Liberal Mob Ruined Science, Journalism, and Hollywood* (Broadside Books, 2018); “an exhaustive search of the Internet could find no record of Lawrence studying meteorology or weather or even studying beyond high school.” No, she believes in climate change based on the *authority* of science.

Similarly, what Headley has done, apparently blithely unaware, is merely exchange *one* way of knowing based on a claim to authority for the *same* way of knowing, only based on a *different* authority. Instead of “believing Religion,” he now “believes Science.” (On the upside, though, with this way you can announce your enlightened state of consciousness with a \$35.00 t-shirt or \$19.00 coffee mug from March-ForScienceShop.com, but again, I digress.)

Disambiguating Science from Scientism

In defense of the scientific-method way, Headley writes, “Science begins with **no assumptions**.” But this is utterly false because the very *practice* of science is itself based on several assumptions, and those assumptions are not scientific but *philosophical*.

Moreland identifies six presuppositions that underpin the empirical sciences. Here are the first four:

1. A natural world exists independent of any mind, language, or theory. In other words, reality consists of real entities and objects outside of observers. (We’re not in the Matrix.)
2. There is a rational order to the structure of that world.
3. Objective truth about that world exists.
4. Human sensory and cognitive faculties are capable of discovering and grasping truth about that world.

The remaining two have to do with ethical, mathematical, and logical truths, and Moreland shows how all six are necessarily *a priori* assumptions underlying the scientific enterprise that science *itself* cannot justify because they are *philosophical*, not scientific, in nature. “Just as the structure of a building cannot be more reliable

than the foundation on which it rests,” he writes, “so the *conclusions* of science . . . cannot be more certain than the *presuppositions* of science.” Thus, in the end, scientism ends up being a *foe*, rather than a *friend*, of science.

This should suffice to demonstrate that scientism is unreliable as a comprehensive epistemology (“epistemology” means “way of knowing”), but it gets worse for Headley and his epistemological kin. Moreland identifies two more criticisms of scientism, the most devastating one being that scientism is, *itself*, self-refuting. Here’s how: Scientism asserts that the only propositions that are even *capable* of being true are scientific propositions. But as we have already seen, scientism is not *itself* a scientific proposition, but is rather a *philosophical* proposition *about* science. Thus, on its own terms, scientism is incapable of being true.

But we’re still not done. There is one more *coup de grace* to be dealt. Scientism denies the existence of true, reasonable beliefs outside of science. And thus, all those moral posturings by Tyson and the marchers for science (and for “climate justice” and for whatever other “justice” cause you might see on a political placard) are rendered null and void according to scientism.

This is no laughing matter. Not only does scientism throw the very foundation of such essential values as human rights under the hegemonic steamroller of “Progress . . . because Science,” but it also blinds people to potentially liberating and more comprehensive paradigms for conceptualizing reality.

Astrophysicist Robert Jastrow conceded before his death in 2008 that the evidence he saw from Big Bang cosmology implies a creator, and that he found it hard to believe human life is “all a matter of atoms and molecules.” But because of what “my science tells

me,” he could not incorporate the concept of a creator into his understanding of reality. It was a situation he found unsatisfactory. “I feel I’m missing something. But I will not find out what I am missing within my lifetime.”

Indeed, given his epistemological constraints, he could not. With apologies to 1970s music fans, Jastrow was so close, and yet so far. Since he couldn’t know God through the methods of science, he found himself, by his own admission, “in a completely hopeless bind.”

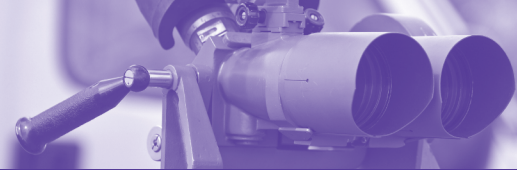
Restoring the Mind by Restoring Philosophy First

Whatever Headley was told in his youth about science being an enemy is false. None of the empirical disciplines we call science are anyone’s enemy. Neither are the Big Bang, an old earth, or evolution. It is the untested, unproven presumption of *scientism* that is the free mind’s enemy and the dogma that should be dropped.

Still, Headley’s essay raises important questions for parents and churches about how to apprehend and propagate truth in an information-glutted society. Authoritative claims to knowledge won’t cut it (and never should have, anyway) in the absence of other reasons to believe.

“Religion often attracts people by selling certainty,” Headley says, but we don’t know anything for certain. Instead, he recommends “a large dose of humility.” Because “we are all human beings, with limited and treacherous brains, trying to figure out an infinite and complex universe that is way bigger than we are.”

And that, indeed, is excellent advice. All of us would do well to take this wise counsel and direct it toward the self-appointed, certainty-selling high priests and priestesses of scientism. ☺



My Pregnancy Sucked

Amelia Bonow, #ShoutYourAbortion
& the Abuse of Other People's Kids

by Terrell Clemmons

Background:

On Friday, September 18, 2015, the U.S. House of Representatives voted to strip Planned Parenthood of federal funds for one year due to questions surrounding the sale of fetal body parts. The following day, Seattle bartender and publicist Amelia Bonow saw this news and "kind of unraveled." Sitting on her couch crying, she opened up her Facebook and posted a 153-word reaction.

For too long, she lamented, women had been stigmatized into feeling bad and keeping silent about their abortions. She'd had an abortion a year earlier at Planned Parenthood, she announced to her Facebook world, but "I have a good heart and having an abortion made me happy." She refused to feel bad about it, and her goal was to encourage more women to speak up so that the debate surrounding abortion might be reframed.

She texted a screenshot of her post to her friend Lindy West, a blogger for Jezebel.com, who then tweeted it, adding the hashtag #ShoutYourAbortion. That snowballed into more than 300,000 #ShoutYourAbortion-tagged tweets.

"Today Shout Your Abortion (SYA) is both an official organization and a loose, decentralized network of individuals talking about abortion on their own terms," wrote Emily Nokes, a Seattle writer who joined the movement and launched a Kickstarter campaign to publish *Shout Your*

Abortion, the book. "The Shout Your Abortion movement is proof that talking about abortion on one's own terms can be powerful, liberating, and ignite a chain reaction of truth-telling."

Reason for Surveillance:

The reason for your abortion does not matter, Bonow insists. Nor does how you came to be pregnant. "Pregnancy is what happens sometimes when people have sex," she wrote in a follow-up article at Salon.com, "and an abortion is what happens when a woman becomes pregnant and does not wish to procreate." And her abortion "felt righteous in the most positive sense of the word," she insisted, ramping up the moralism.

In one respect, Bonow is right. Many women do suffer in silence about their abortions, and many of them may find liberation from their troubled emotions in truth-telling. Where she and this newly born tribe of SYA activists go wrong is in insisting that *everyone else* accept and affirm abortion on *their* terms—as a positive good, a morally righteous act.

Certainly, they are free to tell their stories, but they don't just get to imperiously impose their abortion (a-)morality on everyone else, whether by demanding that they fund abortion, squelch their own contrary opinions, or deny their troubled consciences about the subject.



SHOUT YOUR ABORTION

I am 23 and I have had
3 abortions. YES
I HAVE!

by Heather
August 2, 2018



Most Egregious Offenses:

Case in point: in early 2018, Bonow teamed up with actress Poppy Liu for a "Bible Belt Abortion Storytelling Tour" covering four southern states plus New Jersey and Washington, D.C. Clearly *those Bible people* needed to hear how abortion made her happy and was therefore morally righteous.

And worse: in late 2018, she appeared in a breezy little "Kids Meet" video titled "Kids Meet Someone Who's Had an Abortion," where she talked flippantly with children about how she got pregnant and how a doctor can just "suck the pregnancy out of you." A few of the children asked some good questions. Some looked a bit uncomfortable. No bother, the mommy-like "role model" in white pumps reassured them over peppy background music, "I think it's all part of God's plan."

If abortion shouters want the role of teaching theology and morality to children, then I say let them start with their own. This would, of course, require that they stop aborting them. Which actually is a part of God's plan. ☺

Sexual Dissent

You're Not Benefiting from the New Sexual Order, Are You?

"Is being asexual okay?" my young friend Sami asked me by text.

How do you answer that? I met Sami through a college ministry I'm connected with, and the more I get to know her, the more I marvel at her sweet disposition and childlike faith. Born to a teen mom, a sex-abuse survivor, and the victim several times over of a broken foster care system, she became a Christian at age eighteen through a hairdresser friend. I'm not her mom, but sometimes I put on a mom hat and field her questions.

"I think so," I texted back.

"What is meant by *asexual*?"

"When you feel attraction but, like, don't want to act on it sexually," she said.

Ahhh, I sighed to myself. My young friend is not just the victim of a broken family or a broken system. She is also the victim of a broken set of ideas. Just by dint of her life's milieu to date, she is a victim of the sexual revolution.

"Yes, Sami," I texted back.

"To be honest, that's what used to be called being *chaste*. It means you're being moral with respect to your sexuality." In the short span of two sentences, I explained the God-created design for sex and reassured her that being "asexual" is more than okay. It's actually *good*. She seemed relieved.

What manner of crime has been perpetrated when a young single woman who prefers not to act indiscriminately on sexual feelings wonders whether something might be wrong with her?

No Respector of Persons

Family advocate Jennifer Roback Morse opens her latest book, *The Sexual State: How Elite Ideologies Are Destroying Lives and Why the Church Was Right All Along*, with several snippet profiles of people who are victims of the same broken system:

- Elise, a six-year-old who lives with her grandmother, who never sees her father, and whose mother has gone on to make a life with a new baby and boyfriend.
- Todd, a thirty-something pipe-fitter whose wife left him and their three small children without a word, then four years later showed up and sued for custody of the children while living with her new boyfriend. She won, and he was ordered to pay child support.
- Ben, a thirty-something man whose father took up with another woman and her family over Ben, his mother, and his siblings.
- Lynette, a fifty-something single, childless lawyer who aches because she will never be a mother.

The list goes on, but you get the picture. Chances are that many casualties of this revolution



are as bewildered as Sami over the reasons for their painful and chaotic life circumstances. What do they have in common? They, or someone close to them, says Morse, have accepted certain *ideas* about sex, the primary one being that sex is about freedom and fun more than about babies and bonding. This is the new sexual orthodoxy, and we have several generations of revolutionaries and their apparatchiks to thank for it.

Sexual Ideologies at Odds with Human Realities

Morse identifies and traces the societal acceptance of three ideas about sex—that a good and decent society should:

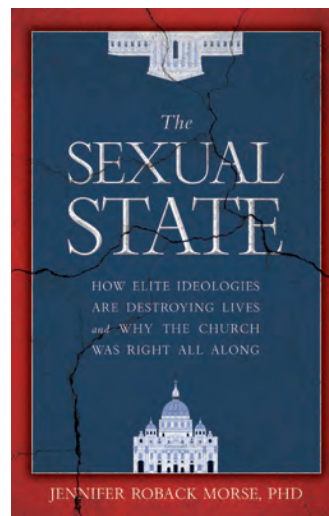
1. separate sex from childbearing: the Contraceptive Ideology;
2. separate childbearing from marriage: the Divorce Ideology;
3. eliminate all distinctions between men and women: the Gender Ideology.

According to the Contraceptive Ideology, people *need* and are *entitled* to sexual activity without it resulting in a live baby. As this idea took hold, children became relegated to an optional, add-on feature of sex. But as sex became primary and children

None of these ideas arose as a grassroots movement. Instead, they were the preferred doctrines of elites. **“The Sexual Revolution . . . is and always has been a movement of the elites justifying their preferred lifestyles, imposing their new morality, and, in the process, allowing them unprecedented control over others.”**



secondary, the “old” structure that sought to corral sex within lifelong marriage for their benefit lost a lot of its significance. Moreover, it became a potential hindrance to sexual happiness, which ostensibly required “liberation” to flourish.



Non-marital sex, cohabitation, and no-fault divorce are all lived-out instances of these first two ideas, but notice all the *separating* going on. The very relationships that bring children into the world are no longer binding and transcendent but are reduced to unstable, consumer-oriented negotiables. Moreover, consider the unstated assump-

tions lying in the background: (1) children don’t really *need* enduring relationships with their parents, and (2) adults do not have certain responsibilities toward their children. Any system constructed on these ideas has prioritized adults’ sexual proclivities over the well-being of children.

The Gender Ideology is arguably even more destructive, as it separates men and women from their own embodied existence. How much more disassembled can a system get?

The Sexual Coup d'État

The *Encyclopedia Britannica* defines *ideology* as “a form of social or political philosophy in which practical elements are as prominent as theoretical ones. It is a system of ideas that aspires both to explain the world and to change it.” Broadly speaking, ideologies are what Western civilization has ended up with whenever it failed to maintain its transcendent, foundational understanding of reality.

Certainly, these ideologies have changed the world, but how exactly did they come into ascendancy in the U.S.? The liberal, Progressive narrative says these norms merely represent the inevitable forward march of history. But to that, Dr. Morse argues emphatically, *Au contraire!*

Consistently she argues that *none* of these ideas arose as a grassroots movement. Instead, they were the preferred doctrines of elites. “The Sexual Revolution . . . is and always has been a movement of the elites justifying their preferred lifestyles, imposing their new morality, and, in the process, allowing them unprecedented control over others,” she writes.

How do the elites impose their morality and exert control? Primarily through the coercive power of the state, but they are helped and sustained by a steady diet of propaganda and misinformation. One especially insidious strain of this manipulative campaign is the conspiracy of silence regarding its victims. When ostensibly non-judgmental terms like “alternative family forms” or “modern family structures” are substituted for “family breakdown,” hurting children are robbed of explanatory paradigms for understanding their pain.

Take my young friend Sami. When she was born, her mother was fifteen, and her grandmother was thirty-one. She has five younger siblings by three different fathers, and her mother just got married to yet another man. All she can say about this is, “I don’t know how I feel about it.” Honestly, who can blame her?

Cui Bono?

Cui bono? is an ancient Latin phrase connected with the Roman statesman Cicero. It means, “*Who benefits?*” and it’s a key forensic question, asking who stands to gain from the crime under investigation. Morse identifies several categories of people who

Within the “old” structure, sex actually can be about freedom and fun as well as about babies and bonding. Even better, it benefits everyone involved—the men, the women, and the children. **Think of it as dissent with benefits.**

get something from this perverse new order. She loosely calls them “the managerial class,” because they seem to fancy themselves qualified to manage society. Among them are:

- Men in power—political, media, corporate, or other kind—who prefer sex without paternal responsibilities.
- Lawyers and jurists, for whom no-fault divorce reduces alimony burdens and provides a steady stream of income from perfunctory divorce proceedings.
- Corporations and business leaders, for whom young, childless women provide unencumbered labor.
- Politicians, for whom this workforce provides a steady stream of tax revenue and enables expansion of the state into realms formerly governed by parents.

Who loses? Mostly women and children.

A Better Sexual Country

The sexual revolution has been a totalitarian movement with a blind commitment to implementing its tenets, regardless of the human cost. Its drivers need the state to enforce their agenda, because their premises are false. “Overriding nature,” Morse drily observes, “is no small task.”

Like all revolutions, it has produced countless casualties, but the good news is, dissent no longer ends in a gulag. Within the “old” structure, sex actually *can* be about freedom and fun *as well as* about babies and bonding. Even better, it benefits everyone involved—the men, the women, *and* the children. Think of it as dissent with benefits. ☉



The Dangers of Intelligent Design

If we allow our children to be brought up questioning the truth that the universe exploded from absolutely nothing for no apparent reason, this will be the future:

No one will have an interest in science.

No one will have an interest in math.

No one will trust empirical evidence.

There will be no more universities or higher learning.

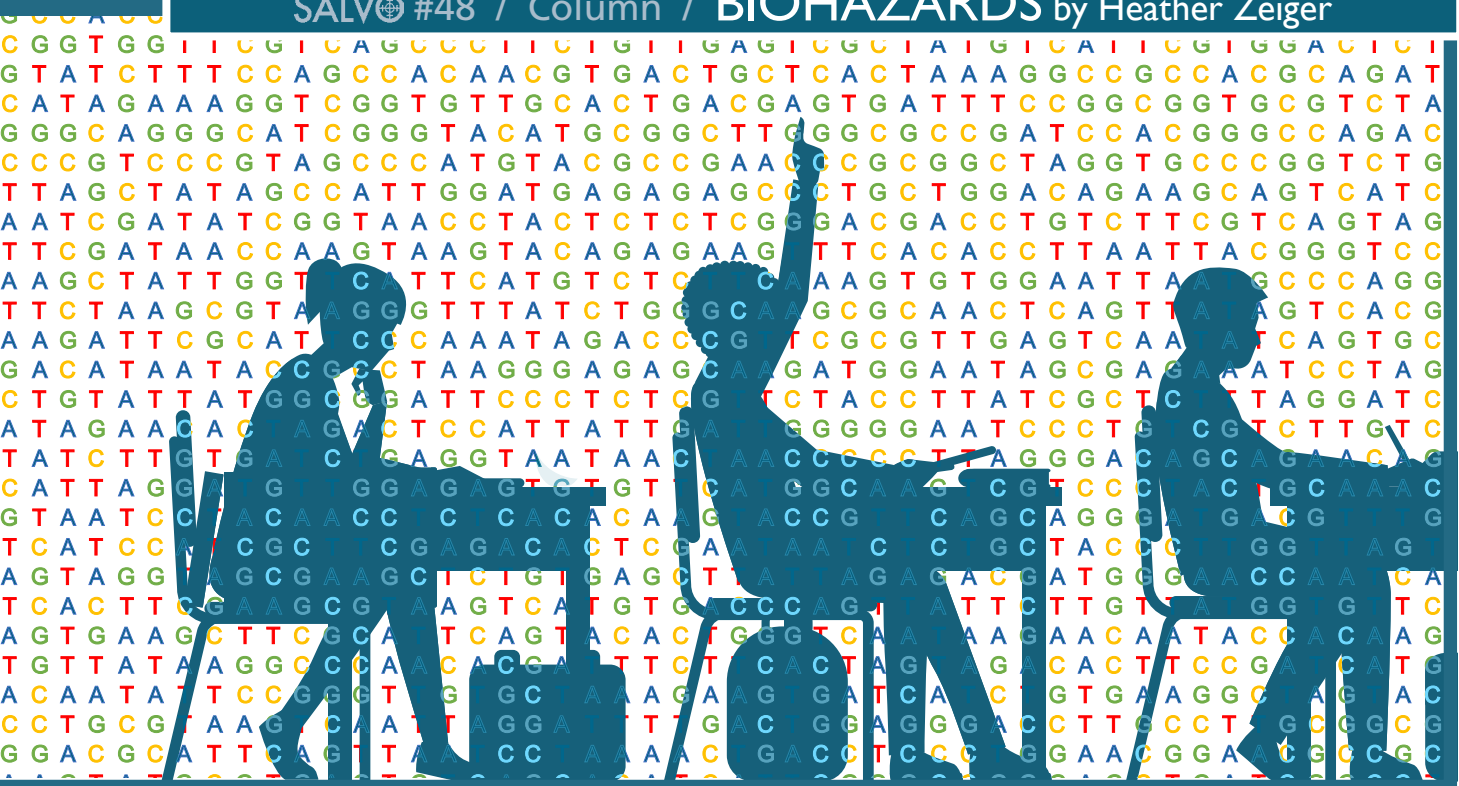
There will be no engineers, researchers, or doctors.

No one will bathe. The rats will again bring a great plague.

Society will break down and the world will fall back into the dark ages.

Teach the science.

Random Accidentalism



Gene Shopping

Will Selecting Embryos for IQ Be the New Eugenics?

Two companies, Genomic Prediction and MyOme, claim they can screen embryos created using IVF for low intelligence (IQ) and cognitive disability.¹ These companies do this by making use of large datasets and sophisticated algorithms to identify a pattern of genetic markers that correlate to cognitive abilities. In a statement, Genomic Prediction co-founder Stephen Hsu said the company will not use this technology to select for high IQ, but only against mental disabilities. But he points out that eventually someone will use this technology to select for intelligence.²

Genomic Prediction and MyOme use something called a “polygenic risk score” to identify an embryo’s risk for a cognitive disability. Polygenic risk scores are used by companies such as 23andMe, that do commercial genetic testing for adults.³ Genomic Prediction and MyOme use preimplantation genetic diagnosis to apply this technology to embryos. Genomics Prediction admits that its methods are not

able to accurately predict each embryo’s IQ, but it can pinpoint genetic outliers among embryos that *might* indicate a low IQ. Parents can then choose whether to implant such an embryo or discard it.

Of course, because all of a given couple’s embryos are made from the same genetic material, parents may be disappointed with all of their available choices. For instance, a particular couple’s genetic material might produce four embryos, all of which have a propensity for Type I diabetes or a sub-average IQ. One can see, then, how a market for premium eggs and sperm would exist among Genomic Prediction’s and MyOme’s clientele. Couldn’t their large

data sets be used to create a searchable database of donors with desirable traits?

Sociogenomics

The fundamental assumption behind Genomic Prediction’s and MyOme’s technique is that complex traits, including disease susceptibility, mental capac-

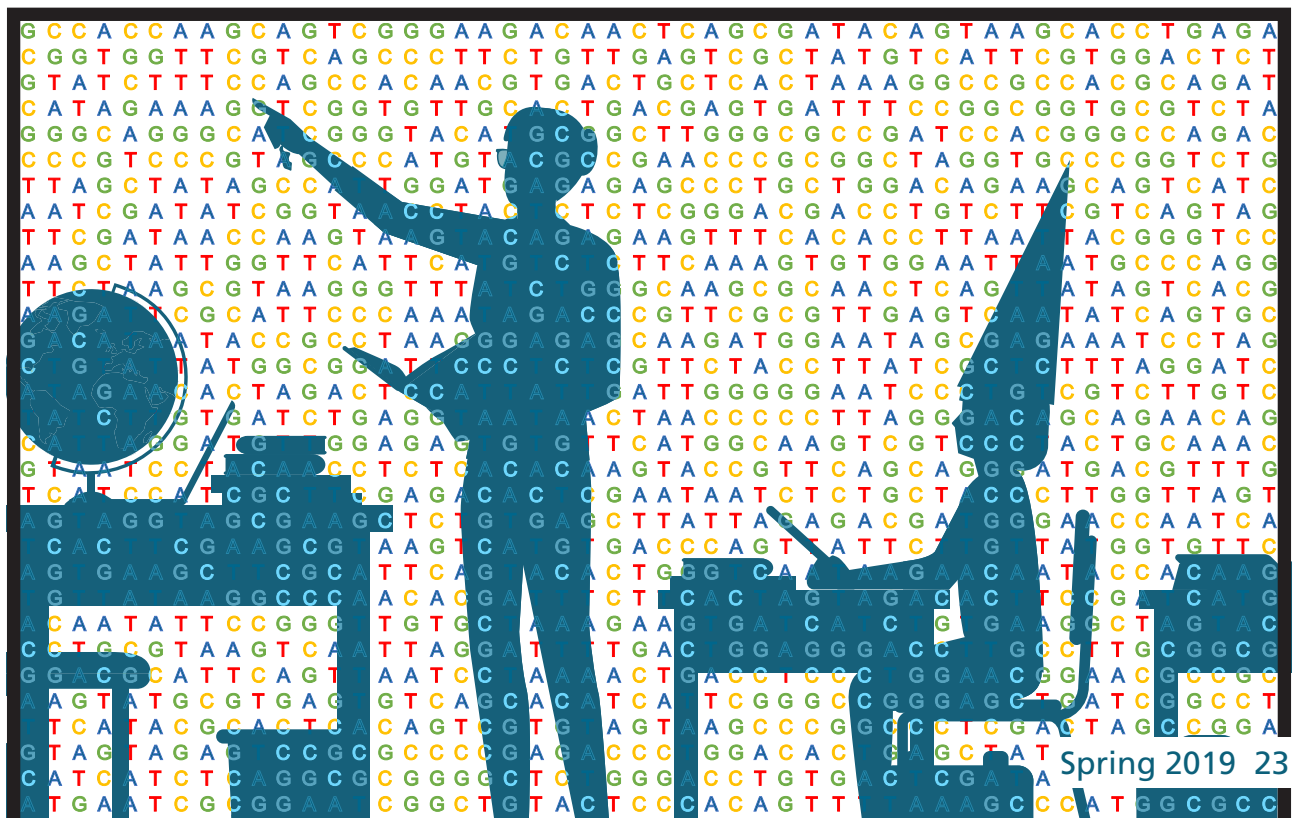
ity, and personality, are largely determined by one's genes. This is the premise of a field of study called sociogenomics. Sociogenomics, also called sociobiology, began as a study of the molecular basis for insect social behavior.⁴ Once genetic sequencing became cheap and easy, scientists could map the entire genome of an organism. This allowed researchers to collect enough data to correlate social behavior with patterns of genetic variance within the genome. The genetic variances are called single-nucleotide polymorphisms (SNPs), which gives you an idea of just how small these variances are—the difference of a single base letter in DNA. Today, algorithms sift through extensive amounts of data to correlate certain behaviors or traits with the patterns of hundreds or thousands of SNPs in a process descriptively called “genome-wide association studies” (GWAS).

Same Technology, Opposite Approaches

Analyzing large swaths of genetic data has helped many individuals born with rare genetic diseases. These diseases may be caused by a single mutation within the entire genome. The best way to find the mutation is through efficient genome sequencing combined with the use of sophisticated algorithms to sift through large data sets. Once the mutation is identified, researchers can try to develop a gene therapy that silences it.

In a statement, Genomic Prediction co-founder Stephen Hsu said the company **will not use this technology to select for high IQ**, but only against mental disabilities. But he points out that **eventually someone will use this technology to select for intelligence.**

When hunting for the genetic culprit of a rare disease, researchers start with a hypothesis—*these symptoms are caused by a genetic mutation*—and then proceed to find where those mutations occur by comparing the patient's genome to thousands of other genomes. If the researchers find more than one patient with the same symptoms and the same mutation, then their hypothesis is tentatively confirmed. If they find several patients with the same



symptoms and the same mutation, they are more confident of their hypothesis. If they do not find a match, then their hypothesis is not confirmed.

Sociogenomics employs the same technology as rare disease research, but it uses a different philosophical method. Nathaniel Comfort, a historian of biology and medicine, says the problem with sociogenomic studies is they don't start with a hypothesis; they start with the data.⁵ Sociogenomics doesn't look for single mutations, but for patterns of genetic variations, which can include mutations, and it correlates those patterns to particular traits. These traits are complex and are likely caused by both genetic and environmental factors.

Rather than making predictions at the beginning of the scientific process, sociogenomics researchers make predictions at the end, after an algorithm matches patterns of SNPs to complex traits. However, Comfort says that with such large data sets, "the number of possible combinations of SNPs is so large that finding associations with any given trait is practically inevitable." In other words, if you look hard enough, you'll find a pattern of SNPs to correlate with anything.

These are two different methods of reasoning that use the same techniques. The search for whether a disease is caused by a mutation is closer to the

traditional scientific method, which uses deductive reasoning. The hypothesis can be confirmed or not. Sociogenomics, on the other hand, is inductive reasoning. It looks at patterns and draws generalized conclusions, creating the potential for false positives.

Problems with Measuring Intelligence

The idea that intelligence can be measured, let alone selected for, poses another problem with screening embryos for intelligence. French psychologist Alfred Binet invented the first iteration of the IQ test in the late nineteenth century to help teachers discern which students needed additional help in the classroom. Binet assumed that a person's intelligence developed with age, but that his intellectual level relative to that of his peers stayed the same. In 1905 Binet developed the Binet-Simon scale, which became the basis for the Stanford-Binet scale used to measure IQ in the United States.⁶ While Binet intended his test as an educational aid, it came to be used for more nefarious purposes. Eugenacists used it as a tool for identifying and sterilizing "feeble-minded" people. The test was also used to justify racial prejudices: African-Americans and certain non-English-speaking immigrants were deemed less intelligent based on their scores on the IQ test—a test written in English that included culturally specific questions.

Critics at the time questioned whether intelligence is really static throughout a person's life, a key assumption for eugenacists and an implied assumption in today's embryo screening. Henry Goddard, a eugenacist who brought the Binet test to America from France said, "The degree of brightness of an individual is expected to remain approximately constant. Were this not so, prognostication would be impossible. Intelligence testing would be of little value."⁷

In fact, a study conducted by Harold Skeel and Harold Dye in the 1930s demonstrated that IQ among children was variable and that IQ was more an indication of a person's particular situation than an innate quality. Their study began with two baby girls who were institutionalized because their IQ scores were in the 40s (100 is average). However, when the babies were transferred to a women's institution and provided with care, attention, toys, and affection, their scores increased by at least 35 points. After several more months, their IQ scores were near average.

Skeel and Dye conducted another study, this

TAKING CARE:

Perspectives for the End of Life

CONFERENCE | JUNE 20-22, 2019

TRINITY INTERNATIONAL UNIVERSITY
DEEFIELD, IL USA

The Center for Bioethics & Human Dignity's annual conference provides opportunities for equipping and education, professional development and academic engagement, as well as networking for individuals across a variety of disciplines and professional contexts.

Join us as we examine foundational concepts and bioethical considerations related to death, dying, and end-of-life care and decision-making.

SPEAKERS

Tracy A. Balboni
Harvard Medical School

Theo A. Boer
Protestant Theological University

D. A. Carson
Trinity Evangelical Divinity School

Lydia S. Dugdale
Yale School of Medicine

John F. Kilner
Trinity International University

Jon C. Tilburt
Mayo Clinic

Patrick T. Smith
Duke Divinity School

LEARN MORE AT
cbhd.org/conf2019

THE CENTER FOR
BIOETHICS
& HUMAN DIGNITY
TRINITY INTERNATIONAL UNIVERSITY

time with thirteen children who were transferred from an orphanage to a more caring environment. They were compared to a control group that stayed at the orphanage. All thirteen children in the nurturing environment improved their IQ scores from the “feeble-minded” level to near average. The control group did not. Unfortunately, this study was ignored and dismissed as “bad science.”⁸

Biological Determinism & Reductionism

Beyond the problematic assumption that IQ stays the same throughout a person’s lifetime is the assumption that intelligence is even measurable at all. IQ hinges on the notion that intelligence is quantifiable; a notion that Stephen Jay Gould questioned in his book *The Mismeasure of Man*.

In the late nineteenth and early twentieth centuries, there was a push to quantify everything about human beings, including their mental abilities. This endeavor was known as psychometrics. Gould, though himself a proponent of Darwinian evolution, was an outspoken critic of psychometrics and the fields that employed it: sociobiology and evolutionary psychology, both of which rely on Darwin’s theory of natural selection. Gould criticized biological determinism as scientifically spurious and politically motivated.⁹

In reality, intelligence is not reducible to a single measurable trait. Alfred Binet himself thought his test did not give the full picture of intelligence because it didn’t provide a good measure of things like creativity or “emotional intelligence.”¹⁰ Proponents of multiple intelligences have shown that IQ tests tend to be culturally specific and neglect other types of intelligence that are advantageous in different contexts.

We see evidence against biological determinism in cases where a gene is known to increase one’s chances of contracting a particular disease—as the BRCA gene does for breast cancer, for instance—yet a person known to have the gene never gets the disease. Various other factors besides genetics, such as one’s environment and lifestyle, determine whether or not a gene will be expressed. Thus, while genetics can inform probabilities, it cannot provide certainty.

Genome-wide association studies are even more tentative than gene-to-disease studies. GWAS can show correlations, but there is no way of knowing if a pattern of SNPs causes a particular trait, such as cognitive disability, or not. Nathaniel Comfort says it is like noticing that people with Down syndrome tend to be shorter than average. But just because

Genome-wide association studies are even more tentative than gene-to-disease studies. **GWAS can show correlations, but there is no way of knowing if a pattern of SNPs causes a particular trait, such as cognitive disability, or not.**

someone is short, it does not mean that he has Down syndrome. Similarly, there is no way to tell whether a certain pattern of SNPs observed in an embryo is actually related to cognitive ability or not.

Embryo screening is, therefore, simply a form of modern-day eugenics dressed up in the trappings of technology and “parents’ choice” lingo. Embryos that do not pass genetic muster are discarded because it is thought that they won’t measure up to cultural notions concerning the value of intelligence and other desirable traits for making life worthwhile. Embryo screening is not therapy. It is a justification for getting rid of a potential “problem” by getting rid of the person. ☹

Notes

1. Bob Yirka, “Progress in genetic testing of embryos stokes fears of designer babies,” *Medical Xpress* (Nov. 16, 2018): <https://medicalxpress.com/news/2018-11-genetic-embryos-stokes-babies.html>.
2. Clare Wilson, “Exclusive: A new test can predict IVF embryos’ risk of having a low IQ,” *New Scientist* (Nov. 15, 2018): [newscientist.com/article/mg24032041-900-exclusive-a-new-test-can-predict-ivf-embryos-risk-of-having-a-low-iq](https://www.newscientist.com/article/mg24032041-900-exclusive-a-new-test-can-predict-ivf-embryos-risk-of-having-a-low-iq).
3. Antonio Regalado, “Eugenics 2.0: We’re at the Dawn of Choosing Embryos by Health, Height, and More,” *MIT Technology Review* (Nov. 1, 2017): [technologyreview.com/s/609204/eugenics-20-were-at-the-dawn-of-choosing-embryos-by-health-height-and-more](https://www.technologyreview.com/s/609204/eugenics-20-were-at-the-dawn-of-choosing-embryos-by-health-height-and-more).
4. Gene E. Robinson et al., “Sociogenomics: Social life in molecular terms,” *Nature Reviews Genetics* (April 2005): [researchgate.net/publication/7973898_Sociogenomics_Social_life_in_molecular_terms](https://www.researchgate.net/publication/7973898_Sociogenomics_Social_life_in_molecular_terms).
5. Nathaniel Comfort, “Sociogenomics is opening a new door to eugenics,” *MIT Technology Review* (Oct. 23, 2018): [technologyreview.com/s/612275/sociogenomics-is-opening-a-new-door-to-eugenics](https://www.technologyreview.com/s/612275/sociogenomics-is-opening-a-new-door-to-eugenics).
6. Con Stough, “Show us your smarts: a very brief history of intelligence testing,” *The Conversation* (Oct. 9, 2015): theconversation.com/show-us-your-smarts-a-very-brief-history-of-intelligence-testing-45444.
7. Quoted in Anya Kamenetz, *The Test: Why our schools are obsessed with standardized testing—but you don’t have to be* (Public Affairs, 2015), 55.
8. *Ibid.*, 56–57.
9. See the Introduction to the 2nd edition of *The Mismeasure of Man*, by Stephen Jay Gould (W. W. Norton & Co., 1996).
10. Daphne Martschenko, “The IQ test has a dark history” *The Week* (Oct. 24, 2017): theweek.com/articles/731957/iq-test-dark-history.

Have Sex & Have Nots

Enjoyment & Satisfaction Are Not Found Where Elites Expect Them

A recent *Atlantic* essay¹ has American elites in a paroxysm of worry: in spite of our culture's sex-saturation, the widespread availability of pornography and sex toys, the growing acceptance of any and all types of sex within or outside of marriage (as long as it's consensual!), the increasing efficacy and availability of birth control (often for free), and an all-time low HIV rate—in spite of all of these seemingly glorious achievements, American young people are having *less* sex.

"These should be boom times for sex," writes the author of the piece, Kate Julian. But it isn't so. Teens are initiating sex at later ages (between 1991 and 2017, the percentage of high-school students who had ever had sex went down, from 54 to 40 percent). "Today's young adults," Julian frets,

are on track to have fewer sex partners than members of the two preceding generations. People now in their early 20s are two and a half times as likely to be abstinent as Gen Xers were at that age; 15 percent report having had no sex since they reached adulthood.

In her extensive research—which involved interviewing countless researchers, experts, and average-Joe daters—Julian hit on five essential culprits behind American young people's boring sex lives:

- increases in pornography use and masturbation (although she persists in believing that there's nothing wrong with porn);
- the "hookup culture" and overscheduled lives of American teens;
- the widespread use of dating apps, which seem to be more a waste of time and another route to disappointment than a path to romance;
- the pain, often physical, that young people experience during sex, because, of course, they haven't had high-quality sex ed; and
- inhibitions related to fear of rejection or a negative body image.

Off the Radar

For the Christian reading Julian's essay, the immediate response to her astonished admission that we are, as a nation, having less sex of poorer quality, is something along the lines of, "Um . . . duh?" The notion that lifelong, committed marriage to someone who treasures you and seeks your fulfillment and happiness in every way might possibly lead to both the best and the most frequent sex seems not even to be on her radar. But there's some pretty compelling



research to back the biblical position (bad pun intended). Even Julian admits that couples in “committed relationships” tend to have more sex than single adults—despite what *Sex and the City* and every other sitcom might suggest. And while some surveys and research suggest that cohabiting adults have more frequent sex, others have found the opposite.

Some of the best research on this subject has been compiled by MARRI, the Marriage and Religion Research Institute, which hails from the Catholic University of America. You know who is most likely to report feeling thrilled and excited, satisfied, loved, “taken care of,” and needed during sex? Who is most likely to report feeling enjoyment? And who is least likely to feel sad, anxious, worried, or afraid? The person in an always-intact marriage (read: never divorced) who worships weekly.² Christians who marry, stay married, take their faith seriously, and remain an active part of a religious body—these are the people who report the most frequent and joyful sex.

This is not reported by Julian, or by any of a number of other concerned members of the me-

Christians who marry, stay married, and take their faith seriously—these are the people who report the most frequent and joyful sex. This is not reported by Julian, or by any of a number of other concerned members of the media and elite, who sit in their offices puzzling over why America’s youth don’t want (or can’t seem to handle) all of the good gifts the sexual revolution has bestowed upon them.



dia and elite, who sit in their offices puzzling over why America’s youth don’t want (or can’t seem to handle) all of the good gifts the sexual revolution has bestowed upon them. This is because America’s elite understand sex to mean, largely, orgasm. Sex is this physical thing you do that makes you feel good, whose primary goal is physical pleasure, though it may, secondarily, produce a nice, if momentary, feel-good connection with another human being.

Foolish World

But sex the way that God designed it is so much richer than that. Sex is what binds the married couple together, what makes them married—and thus makes them the image of Christ and his Church. Sex is a physical and spiritual act with eternal and divine meaning. It makes sense that those who enjoy it the most would be those who understand this, and who understand that good sex is about loving and even serving your spouse, about accepting and forgiving him or her, and about putting someone else ahead of yourself—and finding that the other person does the same.

This conception of sex is the truth that appears as “foolishness to the world.” And now the world is making itself foolish, as global elites find themselves flummoxed as to why we have so many unsatisfied, de-sexed young people, plummeting birth rates, loneliness, and despair. ☉

Notes

1. Kate Julian, “Why Are Young People Having So Little Sex?,” *The Atlantic* (December 2018): theatlantic.com/magazine/archive/2018/12/the-sex-recession/573949.

2. See the Marriage and Religion Research Institute, research papers and “mapping America” charts under the “sexuality” heading, available at <https://marri.us/research/sexuality>.

8×10^3 means $\Rightarrow$ 8,000
(6–10 thousand years; Age of earth—Young Earth Theory)

4.5×10^9 means $\Rightarrow$ 4,500,000,000
(4.5 billion years; Age of earth—Old Earth Theory)

14×10^9 means $\Rightarrow$ 14,000,000,000
(14 billion years; Age of universe—Old Earth Theory)

10^{534} means $\Rightarrow$
(Given ideal conditions,
the number of years for a
few proteins to come into
existence at the same
time by chance.)

The blind-chance basis for evolution
can't explain even one incremental
step in the development of a function-
al, primitive patch of light-sensitive
cells (much less a fully developed eye)
**even by one chance in a billion,
over a span of trillions upon tril-
lions of years.**

1,000,000,000,000,000,000,000,
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000,000,000,000,000,000,000,0
000
000

Age Doesn't Matter

Both Young & Old Earths Are Way Too Young for Darwin's Idea to Survive

by **Tom & Elizabeth Siewert**

Since the time of Darwin and his theory of evolution, the age of the earth has become more important to Bible-believing Christians. Darwin stated that evolution had to proceed as a "slow and gradual process" and so required a long time to produce the diversity of life we see. If, as one way of literally reading the Bible indicates, the earth is only 6,000–10,000 years old, then evolution did not have enough time to produce this vast array of living things and so cannot be true. Since Darwin's theory stipulates that the process of evolution is entirely unguided, not requiring a Creator, and requires extensive time (billions of years?), then a young earth, if demonstrable, would be a strong argument against evolution. >>>

A survey in the U.S. on the age of the earth would yield two dominant answers, one saying that it is 6,000–10,000 years old (the young earth theory) and one saying that it is about 4.5 billion years old (the old earth theory). The young-earth view is based on historical records and relies heavily on the genealogies recorded in the book of Genesis in the Bible. Virtually everyone who adheres to this viewpoint believes in the God of the Bible, i.e., is either a Christian or an adherent of some other religious view out of the Judeo-Christian tradition.

The old-earth view is based on geological, astrophysical, and other scientific data that places the formation of the earth at about 4.5 billion years ago (and the origin of the universe at about 14 billion years ago). While it is true that virtually all atheists and nonbelievers accept an “old earth,” many Christians also accept the old-earth view, based on a different interpretation of some of the words and passages in Genesis.

Four Senses of Evolution

Before we consider how the age of the earth fits with the concept of evolution, we first need to review what people mean by the word “evolution.” The term can have different meanings, including:

- Survival of the fittest
- Change over time within existing species
- A gradual development, resulting in new species
- The *undirected* process by which *all* living species have developed from simple, single-celled organisms into complex organisms. This development took place incrementally, step by step, over the course of the history of the earth:

Most everyone would agree with the concept of survival of the fittest. In fact, you could consider it biblically based. Every time I look at my lawn or garden, I think of Genesis 3:18: “It shall produce thorns and thistles for you.” I see weeds as survival of the fittest in action. Even when the climate is unusually hot, cold, wet, or dry, weeds tend to prosper.

Most people would also agree with the second bullet: that changes occur over time within existing species. This is generally called micro-evolution. Plant and animal breeders are continually striving to produce new varieties with enhanced features, so we should expect that some changes would occur on their own.

There is more divergence of thought on the third bullet: the concept of gradual development resulting in new species. This is called macro-

evolution. If we look at speech as an analogy, we all might agree that languages gradually change over time, resulting in new languages. For example, French, Italian, and Spanish are all thought to be derived from Latin, through a process of gradual change driven by the people using the languages.

But evolution in biology can be far more complicated than the outward appearance of species might suggest. For example, given their similarities in appearance, it would be natural to think that horses and zebras are closely related biologically, differing only in minor respects, like body width and coloring. In reality, they are separate species with substantially different genetic makeups. Domestic horses have 64 chromosomes, while Grevy’s zebras have 46 chromosomes, plains zebras have 44, and mountain zebras have 32, only half as many chromosomes as horses. In some cases these animals have been interbred, but any surviving offspring would inherit two different sets of chromosomes, and so be very unlikely to reproduce.

The fourth bullet, the concept that all living species have developed from a simple, single-celled common ancestor into a variety of distinctive, complex organisms through an *undirected process*, is at the core of the divide between those who agree wholeheartedly with the evolutionary worldview and those who question it. While those who think there is a Creator accept the first three bullet points to varying degrees, they do not accept that undirected processes could produce what we see around us. They attribute the existence of the earth and all of life to the work of an all-powerful creator God. But for those who deny the existence of God, evolution in the sense of bullet four is the only remaining explanation. To the evolutionist, it is very simple: “Of course evolution is true. Here we are!”

The Starting Point of the Debate

However, the division between the two viewpoints doesn’t start with the age of the earth; it starts with the existence of God. If you believe that God exists and that the Bible is the word of God, then the events depicted in the Bible are true historical records. If you assume that there is no God, then the biblical record is a mixture of questionable history and myth, and a materialistic explanation is the only possible one for the world we see. So the theory of evolution is, at its core, a description of how life could evolve without a Creator over billions of years.

This controversy notwithstanding, many people believe that the world has been designed. They marvel at the complexity of life, the beauty of mountains and sunsets, and all the wonders of nature. Christians might say this is obvious, and is supported by such biblical testimony as Romans 1:20: "Ever since the creation of the world his eternal power and divine nature, invisible though they are, have been understood and seen through the things he has made. So they are without excuse" (NRSV). Evolutionists respond by saying that people need to overcome the tendency to see design in nature, and instead should realize that the appearance of design is just an illusion. (In other words, "Pay no attention to that man behind the curtain.")

The wide divergence between these two viewpoints is one reason why the occasional debates between proponents of creation and/or a young earth on the one hand and proponents of evolution and an old earth on the other, really don't accomplish much. The debaters don't address the underlying source of the disagreement (which is the existence of God) and usually end up attacking each other. Usually the audience doesn't come to learn, but to watch the speakers spar, and effectively to cheer for their team. Of course, debates about the existence of God don't fare much better, as they tend to be fairly philosophical and also because neither position can be conclusively proven or disproven.

How can we re-establish some meaningful dialog between the two positions? Can we develop some quantitative method of assessing them? Specifically, is there some way that we can evaluate these two viewpoints by experiments or calculations using generally accepted data from biological research?

The Challenge of Irreducible Complexity

Recently, some of the steps in evolutionary development have begun to be evaluated experimentally using the idea of *irreducible complexity*, the concept that certain biological structures are made up of multiple, critical components that all need to be present for the structure to be functional. If just one component is missing, then the entire biological structure will not function.

Irreducibly complex structures call into question the evolutionary argument that everything in biology is built up incrementally, one step at a time, by an unguided process. Without the other components being present and ready to work together as a system to provide some advantage, the first evolved

Let's put the disagreement over the age of the earth into perspective. Young-earth advocates argue that the earth is 6,000–10,000 years old. These numbers have 4 or 5 digits. Old-earth advocates argue that the earth is 4.5 billion years old. This number has 10 digits. Compared to 10^{534} years (535 digits), the argument about the age of the earth is irrelevant.

component of a given structure would have no reason to continue to exist while "waiting" for the rest of the components to materialize, so it would just disappear again. The challenge here is to bring all the critical components together at the same time.

Michael Behe, in his book *Darwin's Black Box*, describes five irreducibly complex biological structures. One of these is the bacterial flagellum, which confers on the lowly little bacterium the ability to swim. The flagellum looks like a thin piece of hair that whips around in circles to propel the bacterial cell through the water. Biochemically, it consists of many different protein complexes precisely configured to form a tiny outboard motor, complete with a propeller, a stator, a steering mechanism, and other parts. If any one of these proteins is not present, the poor bacterium is left "dead in the water." Behe argues that this flagellum could not have been formed one piece at a time, as evolutionary theory would claim. It makes better sense to say that it was designed.

The eye has also been proposed as a good example of an irreducibly complex structure. All the components of an eye—the iris, which responds to the amount of light available; the lens, which changes shape depending on the distance between it and the perceived object; and the retina, which changes photons into an electrical impulse that travels to the brain—must be in place and working together if the organism is to see and identify objects.

Evolutionists have countered this argument by claiming that the human eye did not need to develop all at once, but could have developed slowly and incrementally over a great many years, with each step giving the organism a slight survival advantage. They hypothesize that the earliest "eye" might have been just a patch of light-sensitive cells on the skin. Then, through random mutations, a depression in the light-sensitive spot could have developed and slowly evolved into a retina. Eventually, over more time, a lens could have developed.

Darwin himself considered the eye a good test case for his theory of evolution. In *On the Origin of Species*, he wrote,

If numerous gradations from a simple and imperfect eye to one complex and perfect [eye] can be shown to exist . . . then the difficulty of believing that a perfect and

complex eye could be formed by natural selection, though insuperable by our imagination, should not be considered as subversive of the theory.

Our Probability Calculation

Our paper “The Need for a Quantifiable Model of Evolution” (*Journal of Bio Innovation*, September 2017) addressed this debate of the evolution of the eye. Rather than arguing whether or not the eye is irreducibly complex, we focused on quantitatively modeling the probability of one incremental step toward the development of a functional eye occurring by chance. Our probability calculation started with the assumption that a primitive eye and its patch of light-sensitive cells were already in existence. We then asked the question: *What if all that is needed to make this patch of light-sensitive cells functional is a few proteins, say 10 hypothetical generic proteins?* (For comparison, a modern light-sensitive eyespot has 202 different proteins.) Our calculation also assumed that the time available for this evolutionary step to occur was 4.5 billion years—the entire time the earth has existed.

The setup for our calculation was very generous towards evolution—it assumed that only 4 amino acids were being used rather than the usual 20, and it also assumed that each protein was a very modest 100 amino acids in length. We further granted evolution the exceedingly generous assumption that a full 10 percent of all molecules in the ocean were amino acids that were interacting with every other amino acid at an implausibly high rate of 10^{14} times per second. Nonetheless, we found that the chance of that one, tiny, incremental step happening was one in 10^{525} . That’s a 1 followed by 525 zeros.

Another way of looking at this model is to ask how long it would take for these few proteins to come into existence at the same time by chance. Under our model, it would take 10^{534} years. This number of years is almost indescribable. It is a 1 followed by 534 zeros!

Age in Perspective

This calculation puts the disagreement over the age of the earth into perspective. Young-earth advocates argue that the earth is 6,000–10,000 years old. These numbers have 4 or 5 digits. Old-earth advocates argue that the earth is 4.5 billion years

old. This number has 10 digits. Compared to 10^{534} years (535 digits), the argument about the age of the earth is irrelevant. The blind-chance basis for evolution can’t explain even *one* incremental step in the development of a functional, primitive patch of light-sensitive cells (much less a fully developed eye) even by one chance in a billion, over a span of trillions upon trillions of years.

Summary

- Historically, many Christians have believed that the earth is 6,000–10,000 years old, based on the genealogical records in the Bible. Nonetheless, today there are many Christians who believe the earth is billions of years old.
- As Darwinian evolution became more popular, belief in a young earth became more important to Christians because it is a strong argument against evolution.
- Debates between young-earth and old-earth proponents are fruitless because each side argues its case using its own basis for truth.
- Research papers are being published that conclude that it would take considerably many more than billions of years for blind and unguided evolutionary processes to produce the diversity of life that we see.
- The difference between the age of a young earth (4–5 digits) and that of an old earth (10 digits) is insignificant in relation to how many years it would take to produce one incremental step in the evolution of one biological structure (535 digits).

Conclusions

- Billions of years and uncounted numbers of organisms are not remotely sufficient (even given all the resources of the universe) to justify a belief in evolution’s ability to develop a complex structure, or even one incremental step toward the development of a complex structure.
- Accepting an age for the earth in the billions of years over taking a young-earth position does not significantly improve one’s ability to make plausible arguments in favor of unguided evolution.
- Young-earth and old-earth creationists should not contend with each other over this point because, since neither earth age supports the theory of evolution as an adequate explanation for the development of complex life on our planet, both positions land on the same side in the overall debate regarding unguided evolution. ☪

Nothing to Go On

Materialist Explanations for the Origin of the Universe Come Up Empty

by Gary Kemper, Hallie Kemper, and Casey Luskin

Arguments for a beginning of the universe go back thousands of years. In fact, most cultures throughout history have believed that the universe was created by an intelligent agent. For example, in ancient Greece, Plato and his followers argued that the universe was the product of a powerful supreme being. Others, however, claimed that the universe is eternal in age and constant in size, and that its origin requires no explanation. This model later came to be called the static universe.

In the sixth through tenth centuries, early Christian and Muslim philosophers attempted to settle the issue with the *kalam* argument. This argument for a first cause has three parts:

1. Anything that begins to exist has a cause.
2. The universe began to exist.
3. Therefore, the universe has a cause.¹

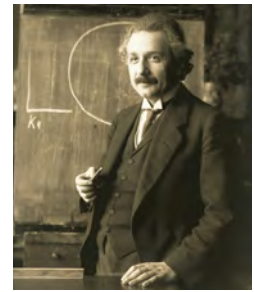
Refusing to accept that the universe had a cause, materialists fought against the *kalam* argument by claiming that the universe never began to exist. Many scientists tended to agree with the materialist phi-

losophy, adopting the belief in an infinitely old universe.

Scientific evidence was not able to address this controversy one way or another until 1915, when Albert Einstein proposed his general theory of relativity. When Einstein developed his theory, he accepted the view common among his scientific peers that the universe was infinitely old. But his equations conflicted with the idea of an eternal universe by predicting an expanding universe, thus implying a beginning of space and time. To offset that expansion, he inserted a numerical constant (the cosmo-

When Einstein later became convinced that the universe was not eternal, he referred to his introduction of the cosmological constant as “the greatest blunder of my life.” However, scientists now believe that Einstein’s error was not in the use of such a constant, but in giving it a value that supported an eternal universe, thus letting philosophical bias influence his science.

logical constant) into his equations. This allowed Einstein to preserve belief in an eternal, static universe.



Albert
EINSTEIN
Developed theory of
relativity



Georges LEMAÎTRE

Proposed that the universe is expanding



Edwin HUBBLE

Established extragalactic astronomy and observational cosmology

When Einstein later became convinced that the universe was not eternal, he referred to his introduction of the cosmological constant as “the greatest blunder of my life.”² However, scientists now believe that Einstein’s error was not in the use of such a constant, but in giving it a value that supported an eternal universe, thus letting philosophical bias influence his science. What convinced Einstein and others that the universe is expanding, and has not existed eternally?

Evidence for a Beginning

In 1927, Belgian astronomer Georges Lemaître theorized that the universe began with a single explosion from a densely compacted state.³ That explosion eventually became known as the Big Bang.

Two years later, astronomer Edwin Hubble published a study supporting Lemaître’s theory. Hubble’s study indicated that all galaxies are receding from one another and that the universe is, in fact, expanding. How did Hubble make this discovery?

The next time an ambulance drives past with its siren blaring, pay attention to the pitch of the sound. As the ambulance approaches, the pitch is high, but as it screams past, the pitch suddenly drops. This is called the Doppler effect. The Doppler effect states that sound waves are heard with a higher frequency when the source of the sound is moving toward you, but with a lower frequency when it is moving away from you.

Although light waves behave differently than sound waves do, a similar effect takes place—also called the Doppler effect. Light waves coming from an approaching object will have their frequency shifted up toward the blue end of the spectrum of visible light. Correspondingly, light waves coming from a receding object are stretched to a lower frequency, and thus shifted down toward the red end—a phenomenon known as the redshift.

Hubble’s research confirmed that galaxies are receding from one another by discovering a disproportionately high level of red light coming from virtually every galaxy. If every observable galaxy is moving away from every other, the universe is expanding.

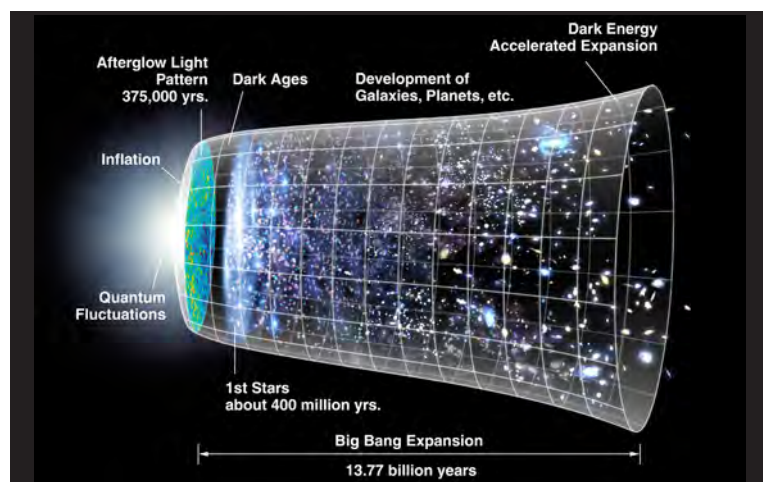
Philosophical Objections

Faced with such supporting evidence, scientists accepted an expanding universe, but many still resisted the concept of a beginning. As physicist Hubert Yockey reports: “In spite of other successes of the general theory of relativity, the Big Bang, and in particular the idea that the universe had a beginning, was fought bitterly every step of the way.”⁴ Yockey might have had in mind astronomers like Sir Arthur Eddington, who in 1931 stated, “Philosophically, the notion of a beginning of the present order of Nature is repugnant. . . . I should like to find a genuine loophole.”⁵

For a time, the Steady State theory seemed to provide such a loophole. This philosophically motivated theory accepted the evidence that the universe is expanding, but proposed that there was no actual beginning because the universe has been expanding eternally. This seemingly impossible claim was justified by theorizing that matter was constantly being created to fill the new space.

The End of the Debate over the Beginning

In 1948, physicist George Gamow provided a way to settle the controversy between the Big Bang and Steady State theories. He and other cosmologists theorized that if the universe began with a Big Bang, there would be radiation left over from this explosive



Timeline of the metric expansion of space, where space is represented at each time by the circular sections.

Hubble Space Telescope being deployed from *Discovery* in 1990.



event. This radiation was discovered in the 1960s, but the debate continued because the measurements were made using earth-bound instruments with limited accuracy.

Finally, in the early 1990s, precise measurements from NASA's Cosmic Background Explorer (COBE) satellite indicated that the universe was filled with radiation having the exact properties predicted by the Big Bang theory. The COBE measurements confirmed that all matter in the early universe exploded from a densely compacted state. Scientists now had conclusive evidence that the universe had a beginning. As astrophysicist Neil F. Comins explained it, "Detection of the cosmic microwave background is a principal reason why the Big Bang is accepted by astronomers as the correct cosmological theory."⁶

Theoretical physicist Stephen Hawking called the COBE research "the discovery of the century, if not of all time,"⁷ and physicist George Smoot, who won a Nobel Prize for this work, elaborated on the implications of the data: "What we have found is evidence for the birth of the universe. . . . [I]t is like looking at God."⁸

It is now widely accepted that the universe had a beginning. According to the *kalām* argument, this implies that the universe had a first cause. Needless to say, materialists disagree with this outcome. Forced to accept a beginning to the universe, they try to explain it without appealing to a first

cause. A number of theories have been proposed in attempts to explain a materialistic origin of the universe.

Self-Creation

Some materialists have claimed that the universe created itself. As Stephen Hawking argued, "Because there is a law like gravity, the universe can and will create itself from nothing."⁹ But for anything to create itself, it would have to exist before it was created. Most people would agree that this is logically

Theoretical physicist Stephen Hawking called the COBE research "the discovery of the century, if not of all time," and physicist George Smoot, who won a Nobel Prize for this work, elaborated on the implications of the data: "What we have found is evidence for the birth of the universe. . . . [I]t is like looking at God."

absurd. Oxford mathematician John Lennox observes that Hawking confused physical laws—which merely describe how the universe works—with ultimate explanations:

The laws of physics can explain how the jet engine works, but someone had to build the thing, put in the fuel and start it up. The jet could not have been created without the laws of physics. . . . Similarly, the laws of physics could never have actually built the universe. Some agency must have been involved.¹⁰

What options are left for materialists? Since they are unwilling to accept intelligent design as a first cause, they hold that ultimately the universe came into being by chance for no reason at all.

Betting on Chance

Oxford University scientist and author Peter Atkins parodies the book of Genesis with a summary of the materialistic view:

In the beginning there was nothing. Absolute void, not merely



George
GAMOW

Discovered a theoretical explanation of alpha decay via quantum tunneling

empty space. There was no space; nor was there time, for this was before time. The universe was without form and void. By chance there was a fluctuation. . . .¹¹

Atkins goes on to argue that this random, theoretical, primordial fluctuation spawned a chain of events that caused everything else—the chance universe.

While Atkins is correct that before the universe there was nothing, not even space or time, his argument does not account for the very beginning of everything. He says, "By chance there was a fluctuation." But if absolutely nothing existed, some questions arise.

- What was it that fluctuated?
- Why was there an environment that allowed for a "fluctuation"?
- What *caused* that non-existent something to fluctuate?

For many years, materialists have been attempting to answer such questions without much success.

Is "chance" an appropriate final explanation in science? When a person says that something happened "by chance," he may

seem to be implying that chance actually *caused* the event. But "chance" cannot be the true cause.

For example, we often think of a coin toss before a football game as an example of "chance." When a referee flips the coin, there are a number of factors that will cause it to land with either the heads or tails side up, such as the weighting of the coin, the placement of the coin in his hand, the amount of applied force, wind, and gravity. Because

many of these factors are difficult to predict or control beforehand, we attribute the outcome to "chance." But "chance" is not

really the cause at all. That term is an expression of probability and is used simply to predict and describe events. It is not a causal agent.

Yet Atkins attributes the origin of the universe to chance. In this context, chance is not an explanation. It is the absence of an explanation.

Quantum Theory & the *Kalam* Argument

Though chance is not an explanation for the origin of the universe, some materialists try to give it a scientific facade by appealing to quantum theory. Most people know little about quantum theory and would probably like to keep it that way. However, a basic knowledge of the concept and its terminology can be helpful in understanding one of the materialists' most popular theories regarding the cause of the universe.

Quantum theory describes matter and energy in terms of subatomic units called "quanta." According to the theory, quantum events take place in a quantum vacuum where waves and particles seem to pop in and out of existence randomly, without any apparent physical cause.

Because there is no physical explanation for the origin of quanta, some physicists claim that this refutes the first part of the *kalam* argument: "Anything that begins to exist has a cause." Of course, there being no *physical* explanation for something does not mean that there is *no* explanation. After all, quantum theory predicts that quantum events will occur within a range of well-defined statistical probabilities—a highly ordered set of circumstances, which is unlikely if there is no underlying cause. This suggests that there *is* a cause for quanta, but that the cause is *not physical*.¹²

Quantum theory does not invalidate the *kalam* argument. Rather, it suggests that some events may originate from causes outside the physical universe—countering the philosophy of materialism.

Although the *kalam* argument still stands, what if it did not? Could materialists then avoid the inference to cosmic design?

Whether or not quanta have a cause, materialists would still have to explain how the vast, finely tuned universe suddenly came to exist—bringing with it the Big Bang



Max
PLANCK

Considered the father
of the quantum theory



In physics, a quantum (plural: quanta) is the minimum amount of any physical entity (physical property) involved in an interaction.

origin of time and space, as well as the universal laws and constants. The immensity and complexity of that event points toward design, not unguided mechanisms.

Just Another Quantum Particle?

Some materialists postulate that the universe arose from nothing, as a random event, in the same way that quantum particles do. There are at least three problems with this claim.

First, quantum particles arise in a quantum vacuum, but a quantum vacuum is not the complete absence of everything; quantum theory does not address the origin of the particle-producing quantum vacuum. As philosopher and cosmologist William Lane Craig writes with James D. Sinclair, a quantum vacuum “is not nothing but is a sea of fluctuating energy endowed with a rich structure and subject to physical laws.”¹³ Thus, Craig asks, “what is the origin of the whole quantum vacuum itself?”, adding, “You’ve got to account for how this very active ocean of fluctuating energy came into being.”¹⁴

Second, philosopher of physics Bruce Gordon explains that quantum theory is merely a description of observed phenomena, not an explanation for it:

A common misunderstanding . . . is that quantum theory . . . actually explains the phenomena it describes. It does not. Quantum theory offers mathematical descriptions of measurable phenomena

with great facility and accuracy, but it provides absolutely no understanding of why any particular quantum outcome is observed.¹⁵

Because there is no physical explanation for the origin of quanta, some physicists claim that this refutes the first part of the *kalam* argument: “Anything that begins to exist has a cause.” Of course, there being no *physical* explanation for something does not mean that there is *no* explanation.

Third, if the universe arose in the same way quanta do, materialists should realize that quanta may be best explained by a non-physical cause. In the same way, the beginning of our universe some 13 billion years ago also requires an explanation outside of the universe.

Much like Peter Atkins’s inadequate appeal to a random fluctuation in the void, quantum theory does not explain why a fluctuation-producing void exists in the first place, nor why quantum particles suddenly appear. This is a common theme among materialistic theories: materialists are forced to argue that natural phenomena appear abruptly, without any clear explanation.

After years of effort, materialists have not explained the origin of the universe. The materialist arguments we have discussed here do not refute the evidence for a beginning of the universe, nor do they remove the necessity of a first cause. ☉



—This article was adapted from the textbook *Discovering Intelligent Design* (Discovery Institute Press, 2013) by Gary Kemper, Hallie Kemper, and Casey Luskin, and is printed here with permission. For more information, visit discoveringid.org.

Notes

1. See William Lane Craig, *The Kalam Cosmological Argument* (Wipf & Stock, 2000).
2. Donald Goldsmith, *Einstein's Greatest Blunder? The Cosmological Constant and Other Fudge Factors in the Physics of the Universe* (Harvard Univ. Press, 1995), 7.
3. See Georges Lemaître, *Annales de la Société Scientifique de Bruxelles Tome XLVII, Series A, Première Partie* (April 1927); Georges Lemaître, “A Homogeneous Universe of Constant Mass and Increasing Radius accounting for the Radial Velocity of Extra-galactic Nebulae,” *Monthly Notices of the Royal Astronomical Society*

91 (March 1931), 483–490.

4. Hubert P. Yockey, *Information Theory and Molecular Biology* (Cambridge Univ. Press, 1992), 212.
5. Sir Arthur S. Eddington, “The End of the World: From the Standpoint of Mathematical Physics,” *Nature* 127 (March 21, 1931), 447–455.
6. Neil F. Comins, *Discovering the Essential Universe*, 4th ed. (W. H. Freeman, 2009), 406.
7. Stephen Hawking, quoted in “Professor George Smoot,” *Current Biography* 55 (April 1994): <http://aether.lbl.gov/www/personnel/Smoot-bio.html>.
8. George Smoot, quoted in Dennis Overbye, “2 Americans

Win Nobel in Physics,” *New York Times* (Oct. 4, 2006): nytimes.com/2006/10/04/science/04nobel.html.

9. Stephen Hawking and Leonard Mlodinow, *The Grand Design* (Bantam, 2010), 180.
10. John Lennox, “As a scientist I’m certain Stephen Hawking is wrong. You can’t explain the universe without God,” *Daily Mail Online* (Sept. 3, 2010): dailymail.co.uk/debate/article-1308599/Stephen-Hawking-wrong-You-explain-universe-God.html.
11. Peter Atkins, *Creation Revisited: The Origin of Space, Time and the Universe* (W. H. Freeman, 1992), 149.

12. See Bruce L. Gordon, “A Quantum-Theoretic Argument Against Naturalism,” in *The Nature of Nature: Examining the Role of Naturalism in Science*, eds. Bruce L. Gordon and William A. Dembski (ISI Books, 2011).
13. William Lane Craig and James D. Sinclair, “The *Kalam* Cosmological Argument,” in *The Blackwell Companion to Natural Theology*, eds. William Lane Craig and J. P. Moreland (Wiley-Blackwell, 2009), 183.
14. William Lane Craig quoted in Lee Strobel, *The Case for a Creator* (Zondervan, 2004), 101.
15. *Ibid.*, note 12.

Lost & Found

Four Astronomical Discoveries
of “Missing Matter” Support
Cosmic Creation •

by Hugh Ross

During my graduate school days at the University of Toronto I had the privilege of taking a short course from Princeton University astronomer and cosmologist Jeremiah Ostriker. In that course Ostriker spoke about the “missing mass” of the universe. The mass he referred to was not the dark matter (also known as cold dark matter or exotic dark matter), comprised of particles that do not interact, or only weakly interact, with photons. Rather, he was concerned about missing atomic matter, matter comprised of protons, neutrons, and electrons, which interact strongly with photons. Detection of such matter carries significant implications for the reliability of models for the beginning of the universe, often called big bang models.

Astronomers began to refer to this problem as the “missing baryons” problem, given that baryons—predominantly protons and neutrons—comprise the atomic matter we most commonly experience. (Electrons contribute a trivial amount to the total mass of the universe’s atomic matter.)

Back in the 1970s, the missing baryons posed a significant challenge to the set of big bang cosmic origin models. The models predicted the existence of many more baryons in the universe—

nearly ten times more—than astronomers at that time had been able to inventory. This dilemma led to lingering doubts about the validity of the biblically anticipated model¹ for the origin of the universe.

In the 1970s Ostriker hypothesized that many of these missing baryons lurked in the hot diffuse gas spread across the otherwise empty voids between galaxies. He also opined that these baryons would be extremely difficult to detect.

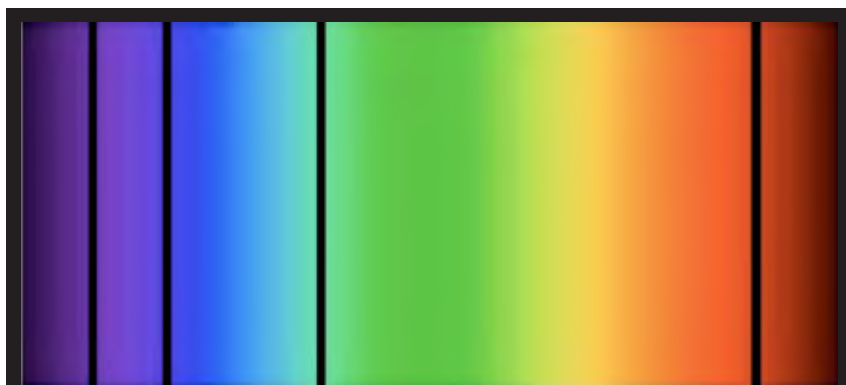


Figure 1: Absorption Spectrum for Hydrogen. Hydrogen gas between the light source and the observer absorbs light at the spectral lines of hydrogen. The absorption lines from right to left are H α , H β , H γ , and H δ .

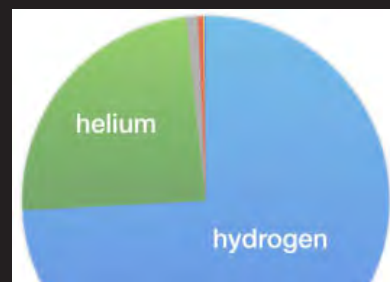


Figure 2: Relative Mass Fractions of the Elements in the Universe. Hydrogen and helium comprise more than 98 percent of the universe’s element abundance.

Measuring Absorption Spectra to Detect the Missing Baryons

In 1999 Ostriker and his Princeton colleague Renyue Cen published computer simulations they had run on gas movements within and between galaxies.² They concluded that hot gas accumulates along filaments between galaxies. These filaments, they proposed, most likely contained the missing baryons. However, this hot gas would remain undetectable until a new generation of X-ray telescopes, then being planned or scheduled for launch into Earth orbit, could reveal the absorption spectra (see Figure 1) of quasars at X-ray wavelengths.

The gas between Earth and a bright quasar or galaxy will absorb some of the light of the quasar or galaxy *if* that gas is not too hot. Typically, astronomers would determine the mass of this gas by measuring the absorption spectra of the two most abundant elements comprising intergalactic gas, namely, hydrogen and helium. (Hydrogen and helium make up 98–99 percent of the baryons in intergalactic gas.) However, this option offered no help because the intergalactic gas is so extremely hot that it completely strips away all the electrons normally attached to hydrogen and helium nuclei. The resulting plasma of free electrons plus hydrogen and helium nuclei absorbs no light.

After hydrogen and helium, oxygen is the third most abundant element in the universe (see Figure 2).³ Oxygen atoms have

eight electrons, compared to two for helium and one for hydrogen. It takes a lot more heat to strip away all the electrons of an oxygen atom than of a helium or hydrogen atom. Ostriker and Cen calculated that the heat of intergalactic gas would be able to strip away five, six, or seven of oxygen's electrons, but not all eight. The remaining electrons would allow for an absorption spectrum measurement sufficient to determine the mass of the previously unmeasurable intergalactic gas.

Finally, in 2018, astronomers gained the necessary instrumentation and observing time to detect (more than marginally) the oxygen absorption spectra of hot intergalactic gas. A team of 21 astronomers led by Fabrizio Nicastro performed a very long duration observation on the brightest known X-ray blazar, IES 1553+133,⁴ with the X-ray multi-mirror Newton telescope (see Figure 3).⁵ They detected the absorption spectrum of O_{VII} , oxygen atoms with six of their eight electrons stripped away by the hot intergalactic gas. Thanks to their long observing time, Nicastro's team achieved a signal-to-noise ratio high enough

to conclude from their absorption spectra measurements that they had found all of the missing baryons.

Because the conclusion by Nicastro's team was based on a single object, a question mark remained. Perhaps the density of the hot intergalactic medium varies, at least slightly, from one location to another. To be certain that they had found all the missing baryons, astronomers needed confirmation based on measurements from at least one other bright extragalactic source, and preferably accomplished with a different X-ray telescope.

In a recent submission to the *Astrophysical Journal*, a team of six astronomers led by Sanskriti Das reported that they had achieved O_{VII} absorption line measurements on the spiral galaxy NGC 3221 (see Figure 4) using the Suzaku X-ray telescope.⁶ Though the signal-to-noise ratio of their measurements achieved a little less clarity than that realized by Nicastro's team, the Das team's measurements were notably consistent with the conclusion that all the missing baryons have been found.

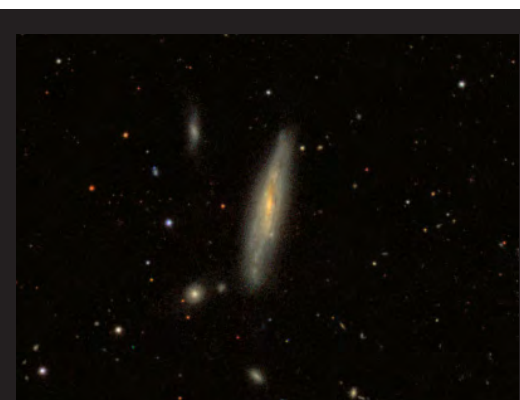


Figure 4: Spiral Galaxy NGC 3221.

Measuring the Mass of Intergalactic Gas to Detect the Missing Baryons

Just as Nicastro's and Das's teams were finding the universe's missing baryons through the X-ray absorption spectra method, two other astronomy research groups found them using a completely different method. These teams looked for subtle distortions in the spectrum of the cosmic microwave background radiation, the radiation left over from the cosmic creation event.

As the radiation from the very early history of the universe streams across the cosmos, it can be slightly distorted as it passes through regions of gas. The electrons in the hot intergalactic gas interact with photons from the cosmic microwave background radiation in a manner that imparts a little extra energy to those photons. Thus, astronomers should be able to see these subtle distortions in their maps of the cosmic microwave background radiation.

The Planck spacecraft had yielded the most detailed map of the cosmic microwave background radiation (see Figure 5) available. However, even within this most detailed map, the distortions



Figure 3: The XMM-Newton X-Ray Telescope and Spacecraft.

caused by these energized electrons in the hot intergalactic gas proved too subtle to be seen.

While the Planck spacecraft was unable to make this detection between any single pair of galaxies, astronomers figured out a way to enhance the signal by stacking images of different galaxy pairs on top of one another. First, they searched published galaxy catalogs and selected pairs of galaxies that were massive enough and appropriately far apart from each other that researchers could reasonably anticipate the presence of a dense web of hot intergalactic gas between them. Next, they went to the Planck map of the cosmic microwave background radiation and precisely identified the location for each galaxy pair. Then they used digital scissors to clip the region for each galaxy pair from the Planck map.

Finally, they stacked all the clipped regions on top of one another so that all the pairs of galaxies were aligned in the same exact position. This stacking of images allowed them to subtract out the light from all the gas known to be associated with the galaxy pairs, leaving only the signal from the intervening intergalactic gas. What they had not been able to detect based on a single pair of galaxies ultimately became visible when integrated over numerous pairs of galaxies.

A team of four astronomers led by University of Edinburgh's Anna de Graaff stacked pieces of Planck map images from a million pairs of galaxies, one on top of another.⁷ The remaining signal (after subtraction of the signal from all the gas associated with the million galaxy pairs) was strong enough to show de Graaff's team the mass of the hot intergalactic gas. That mass added up to the missing baryons.

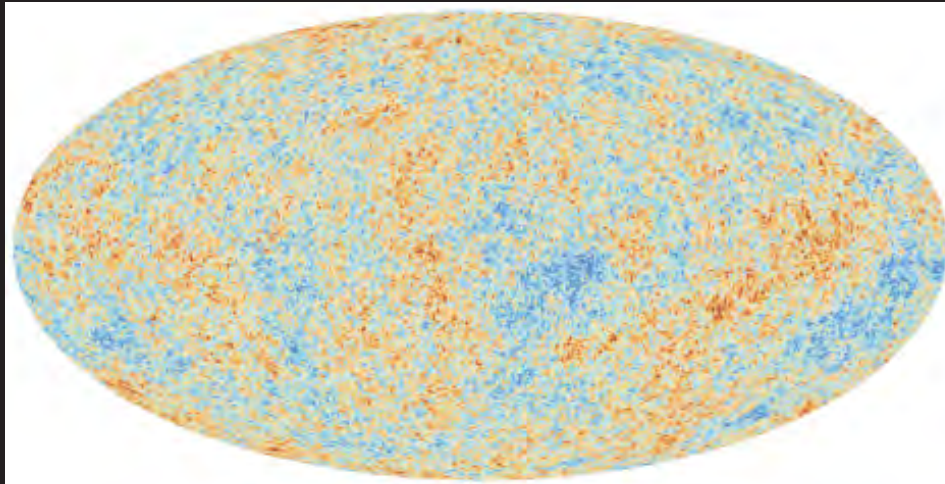


Figure 5: Planck Spacecraft Map of the Cosmic Microwave Background Radiation. The colors indicate tiny temperature fluctuations, with red regions warmer and blue regions colder by about 0.0002 degrees.

An independent team of nine astronomers led by University of British Columbia's Hideki Tanimura stacked Planck map image pieces of 260,000 pairs of luminous red galaxies seen in the Sloan Digital Sky Survey Data Release 12.⁸ Their measured mass of the hot intergalactic gas also added up to the missing baryons.

All Four Measurements Agree

Astronomers have now produced four independent measurements of the mass of the hot intergalactic medium based on completely

distinct methods using different telescopes and different databases of galaxies and quasars. The fact that all four measurements agree gives astronomers confidence that they really have found the missing baryons of the universe.

Thus, the missing baryons challenge to big bang cosmology has been resolved, and the scientific case for the validity of the biblically predicted big bang creation model is even more firmly established than before.⁹ We have one more reason to be confident that the God of the Bible exists and personally crafted the universe for our existence. ☉

Notes

1. Hugh Ross and John Rea, "Big Bang—The Bible Taught It First!", *Reasons to Believe* (June 30, 2000): reasons.org/explore/publications/rtb-101/read/rtb-101/2000/06/30/big-bang-the-bible-taught-it-first.
2. Renyue Cen and Jeremiah Ostriker, "Where Are the Baryons?", *Astrophysical Journal* 514 (March 20, 1999): <http://iopscience.iop.org/article/10.1086/306949/meta>.
3. Wikipedia, "Abundance of the Chemical Elements": https://en.wikipedia.org/wiki/Abundance_of_the_chemical_elements.

cal_elements.

4. C. M. Raiteri et al., "Synchrotron Emission from the Blazar PG 1553+133. An Analysis of Its Flux and Polarization Variability," *Monthly Notices of the Royal Astronomical Society* 466 (April 21, 2017): <https://academic.oup.com/mnras/article-abstract/466/3/3762/2733862?redirectedFrom=fulltext>.
5. Fabrizio Nicastro et al., "Observations of the Missing Baryons in the Warm-Hot Intergalactic Medium," *Nature* 558 (June 21, 2018): <https://arxiv.org/abs/1806.08395>.
6. Sanskriti Das et al., "Dis-

covery of Massive Warm-Hot Circumgalactic Medium around NGC 3221" (Oct. 31, 2018): <https://arxiv.org/pdf/1810.12454.pdf>.

7. Anna de Graaff et al., "Missing Baryons in the Cosmic Web Revealed by the Sunyaev-Zel'dovich Effect" (Oct. 5, 2017): <https://arxiv.org/pdf/1709.10378v1.pdf>.
8. Hideki Tanimura et al., "A Search for Warm/Hot Gas Filaments between Pairs of SDSS Luminous Red Galaxies" (Oct. 5, 2018): <https://arxiv.org/pdf/1709.05024.pdf>.
9. Ross and Rea, *ibid.*, note 1.

Behe Right or Wrong

A Scrappy Microbiologist Won't Back Down & Advances His Case

When a man knows something's true, when it's obvious to him, but his peers and his colleagues believe something else, what does he do? Especially if it has to do with a subject considered to be very important, even foundational for the work he does, what does he do?

Does he decide to set his ideas on paper for the whole world to see? This guarantees fierce opposition and sometimes personal attack. To choose this path requires willingness to face that opposition and stand firm. Such intellectual courage is rare but not vanishingly so. This is the story of a man who has that courage.

The Concept of Irreducible Complexity

By the early 1990s, Dr. Michael J. Behe, professor of biochemistry at Lehigh University, had come to doubt the efficacy of Darwinian evolution. (Behe uses the term *Darwinian evolution* to distinguish it from *evolution* meaning simply change over time, which is not controversial and which he accepts. Darwinian evolution, on the other hand, is claimed to be the result of unguided, naturalistic processes of random mutation and natural selection, which he sees as severely limited).

In 1993, Behe attended a meeting with other intelligent design advocates at Pajaro Dunes, California. He presented a now key idea for intelligent design called *irreducible complexity*. By 1996, he had completed his seminal book, *Darwin's Black Box: The Biochemical Challenge to Evolution*, in which he introduced irreducible complexity in print. Behe defined it as "a single system composed of several well-matched, interacting parts that contribute to the basic function, wherein the removal of any one of the parts causes the system to effectively cease functioning." He gave several now-famous



Dr. Michael J. Behe

examples: the bacterial flagellum, the blood-clotting system, and the immune system.

Behe is a biochemist. His knowledge of the intricacies of biochemical systems led him to

his ideas about intelligent design. If there are systems in the cell, or in the body, that are composed of multiple interacting parts, all of which must be present for the system to work, such that there is no function until they are all there, the question arises, *How did that system come to be?* It is irreducibly complex. It can't evolve one piece at a time and then assemble all at once—hey presto!—with everything in its proper place. It can't build gradually without guidance because it has no function yet. Evolution has no foresight. It doesn't collect parts and store them away for some future use. A non-functional protein will be subject to recurring mutation while it "waits" for other parts to evolve.

The only way for an irreducible, multi-part, well-fitted system to evolve is for it to have multi-functional proteins that can assemble themselves into a new structure, such that the assembly can adapt to a new function gradually. How likely is that? Let's look at the primary test case for Behe's irreducible complexity, the bacterial flagellum.

The Problem with Homology

The flagellum is the means by which the bacterium swims. It consists of a whip-like tail attached to a motor and rod that spin the tail, acting very much like an outboard motor and propeller on a boat. The motor resembles a man-made engine, only it is powered by proton flow rather than gas, with a drive shaft, bushings, stator, and clutch. The parts fit together precisely, and the core parts are essential for function—if one is removed, the whole thing ceases to work. Present-day flagella are composed of 30–50

proteins, depending on the bacterial species. Twenty proteins are part of the core function.

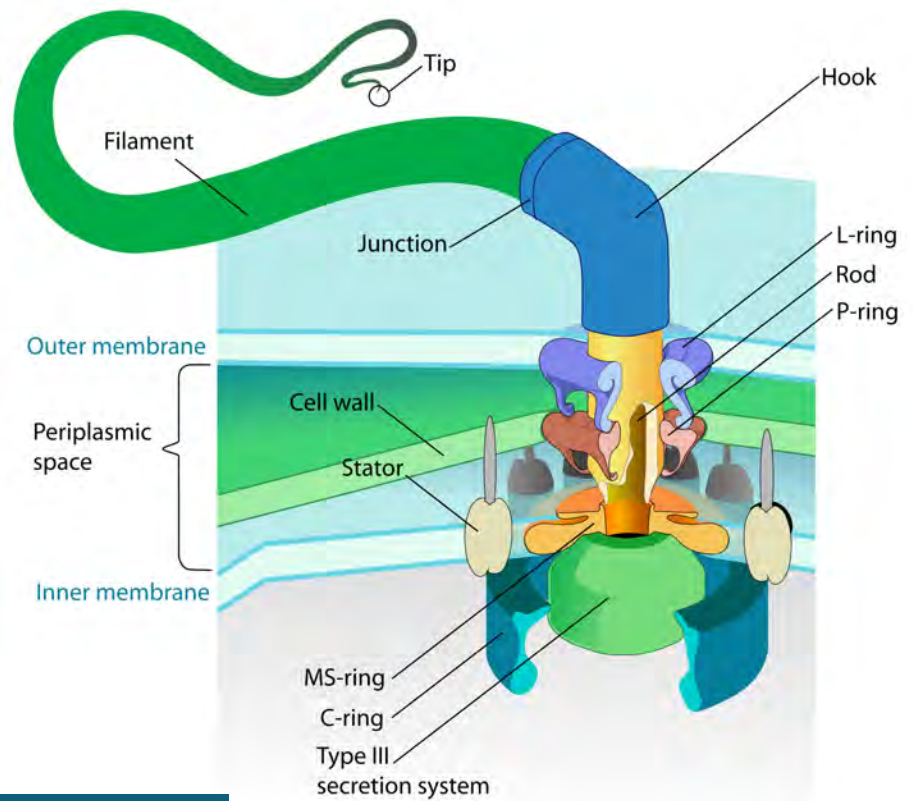
Assembling twenty proteins would take a lot of evolutionary time, one would think. What do Behe's critics say?

Ian Musgrave wrote a piece called "Evolution of the Bacterial Flagellum," published in 2004.¹ In it, he claimed there was a path by which the bacterial flagellum might have evolved. The key rhetorical strategy he uses is to identify a sequence of extant organisms that might illustrate an evolutionary pathway, and then declare it to be so. He also uses similarity of function or structure to imply relatedness.

Many evolutionary arguments hinge on that one word, "similarity," or its evolutionary sister, "homology." Homology means having similarity of sequence, structure, or function *because* of shared ancestry, thereby assuming the thing it is meant to prove.

Some background: There are two different kinds of bacteria: eubacteria and archaebacteria, with flagella that superficially look alike. Both kinds of flagella provide motility but are also involved in

If there are systems in the cell, or in the body, that are composed of multiple interacting parts, all of which must be present for the system to work, such that there is no function until they are all there, **the question arises, How did that system come to be? It is irreducibly complex.**



Bacterial Flagellum

secretion. (They have to be, in order to build themselves outside the cell wall.) Notably, these two kinds of flagella are built from different proteins. As Musgrave says, "There is no homology between the flagellar proteins of the eubacteria and archaebacteria." That means there is no shared ancestry between the two kinds of flagella.

To make his case, Musgrave outlines an evolutionary path for *archaebacteria*. He takes secretion from some bacteria, slides over to twitching motility in other bacteria, which involves some secretion, and spins up rotatory motility in yet other bacteria. He doesn't state how this happened (there are *lots* of missing steps) or demonstrate how it works; he just asserts it. (This is a not uncommon mode of argumentation in evolutionary biology. If a sequence of organisms can be found that might illustrate a path to some structure or function, then that perhaps-possible-pathway is taken as a demonstration that evolution of that structure or function is inevitable.) He asserts without evidence that

The archaebacterial flagellum passed from being a secretory structure, to a gliding motility system, to a rotatory swimming system. At each point there was time for substructures to adapt to each other before the next stage.

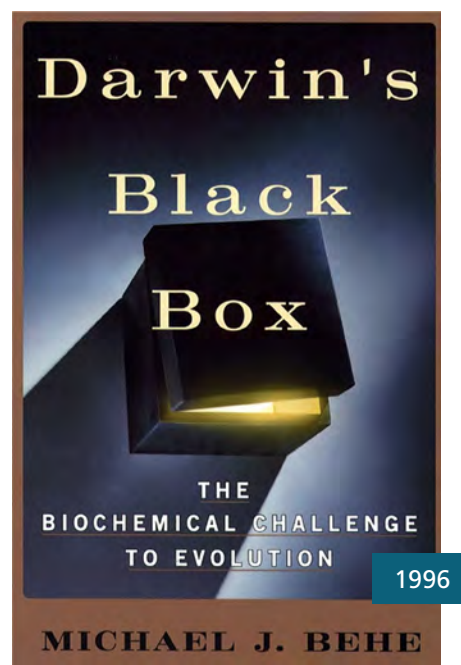
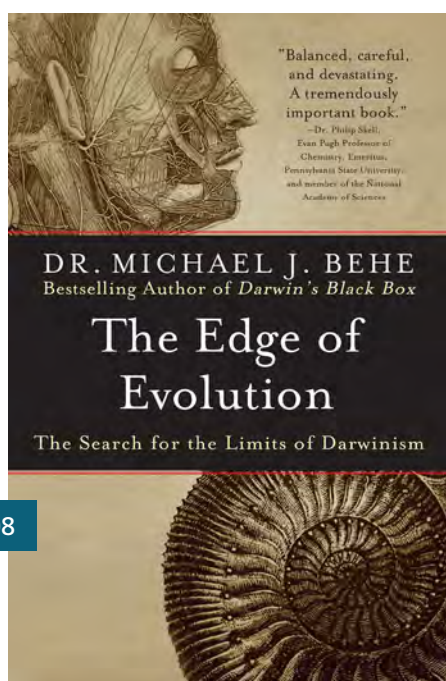
That's artful storytelling, rather than fact.

Turning to the eubacterial flagellum, Musgrave says first that the majority of proteins in this flagellum have homology with other proteins outside the flagellum.

[We] now know that the majority of the eubacterial flagellar proteins have homologs. As I have pointed out, the motor proteins and the chemical-sensing system have homologs in other secretory systems. Other flagellar proteins such as the sigma factors have homologs as well. In the end there is not much unique left in the flagellum.

Here he's sneaking in an evolutionary story through the use of the word "homology." All it really means is that there is some similarity in sequence with non-flagellar proteins. *But just because two proteins look alike does not mean there is a path between them.*

Then comes the sleight of hand. Musgrave draws a parallel between archaeobacterial and eubacterial flagellar evolution, based on archaeobacteria's putative evolutionary sequence as described above, even though they are unrelated. First, a secretory system *arose* in eubacteria. Next, an ion pump (which later became the motor protein) improved secretion. Then the primitive flagellar filament *arose* as part of the protein secretion structure. Gliding/twitching motility came next (*arose*) and was refined into swimming motility. In his text that word "arose" is used as if these proteins rose up out of the dawn mists fully formed, like Aphrodite.



Memorize this: Just because two proteins look alike does not mean there is a path between them. Just because creatures look like they could be related in a functional series, does not mean they are so related. Just because an evolutionary biologist says he has a plausible pathway doesn't make it so, either.

Evolution by Loss of Function

I will pass over other controversies involving the other irreducibly complex systems that Behe describes in *Darwin's Black Box*, and move on. Behe's next book, *The Edge of Evolution: The Search for the Limits of Darwinism*, was published in 2008. In it, he explores the subject of his postdoctoral work, malaria.

Malaria is a dreadful disease, and the parasite that causes it is very good at evading anti-malarial drugs. The drug chloroquine, however, had a longer run of effectiveness than any other. Behe said that because of the number of malarial parasites in the human population, if all it took for a parasite to develop resistance to a certain medication were one mutation, such resistance would develop quickly. But if two mutations were required, it would take decades. And that is how long it took for chloroquine resistance to develop. Behe predicted that when the molecular basis for the resistance was discovered, it would be shown that two mutations were responsible.

He was right. A paper published in the *Proceedings of the National Academy of Sciences*, which he quotes, says,

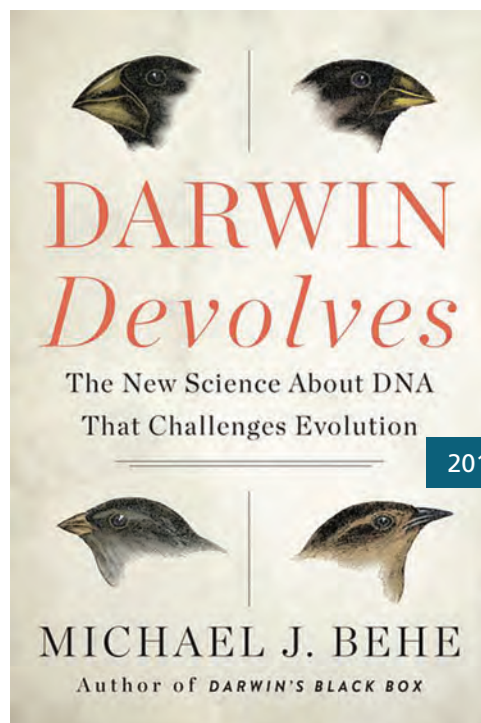
A minimum of two mutations sufficed for (low) CQ transport activity, and as few as four conferred full activity. . . . The findings presented here reveal that the minimum requirement for (low) CQ transport activity in both the ET and TD lineages of CQR PfCRT is two mutations.²

In 2010, Behe published a paper in the *Quarterly Review of Biology* called “Experimental Evolution, Loss-of-Function Mutations, and the First Rule of Adaptive Evolution,”³ in which he summarized years of work by geneticists on numerous bacteria and viruses, and laid out this principle: “Break or blunt any functional coded element whose loss would yield a net fitness gain.” In other words, if an evolutionary problem can be solved by reducing or eliminating some genetic function, that is the path most likely to be taken.

Much of evolution occurs by loss of function, as long as the breaking or blunting of a coded functional element (which results in loss of function) actually helps the organism survive or reproduce better. The reason is simple. It is much easier to damage or destroy an existing function than it is to build a new one. But this is a one-way road. *Many kinds of mutation are irreversible.*

In the years since that paper was published, and with the acceleration of genome sequencing, more and more evidence of evolution by loss-of-function mutation has accumulated.⁴ Behe was right again.

Just because two proteins look alike does not mean there is a path between them. Just because creatures look like they could be related in a functional series, does not mean they are so related. **Just because an evolutionary biologist says he has a plausible pathway doesn’t make it so, either.**



New Book, New Challenge

Behe is not in a defensive posture, despite his critics. He continues to advance. He has taken his ideas (irreducible complexity, the limits of evolution, and loss of function as the main mode of evolution) to the next level in his new book, just released in February, called *Darwin Devolves*.⁵ There he asks, What exactly can Darwinian evolution accomplish, when loss of function is the main road to effecting change, when there is a limit to how far random mutation can go, and when the requirements of irreducible complexity have to be fulfilled?

I will not disclose the answer, but I can guarantee his answer will challenge—and no doubt aggravate—his critics. ☺

Notes

1. In *Why Intelligent Design Fails: A Scientific Critique of the New Creationism*, Taner Edis and Matt Young, eds. (Rutgers Univ. Press, 2004).
2. Ann Gauger, “A Pretty Sharp Edge,” *Evolution News* (July 28, 2014): https://evolutionnews.org/2014/07/a_pretty_sharp; “Best of Behe,” *Evolution News* (Nov. 10, 2016): https://evolutionnews.org/2016/11/best_of_behe_a; Summers et al., “Diverse mutational pathways converge on saturable chloroquine transport via the malaria parasite’s chloroquine resistance transporter,” *PNAS*, (Apr. 29, 2014): [pnas.org/content/111/17/E1759](https://doi.org/10.1073/pnas.1311171111).
3. Michael J. Behe, “Experimental evolution, loss-of-function mutations, and ‘the first rule of adaptive evolution,’” *The Quarterly Review of Biology* (December 2010): [journals.uchicago.edu/doi/abs/10.1086/656902](https://doi.org/10.1086/656902)?journalCode=qrb.
4. Ann Gauger, “Bacteriophages, Budding Yeast, and Behe’s Vindication,” *Evolution News* (Nov. 26, 2018): <https://evolutionnews.org/2018/11/bacteriophages-budding-yeast-and-behes-vindication>.
5. Michael J. Behe, *Darwin Devolves: The New Science About DNA That Challenges Evolution* (HarperCollins, 2019).

Big Artificial Brother

Corporations & Governments Want to Keep an Eye on the Rest of Us

Artificial intelligence is not dangerous. Only natural intelligence is dangerous. As we have seen in recent issues of *Salvo*, many fears of artificial intelligence (AI) are overblown. AI will not become conscious. We don't even know what consciousness *is*, in any scientific sense, let alone how to produce it. Nor will AI take over the world. Lacking a conscious self, an entity could not have a personal goal at all, let alone a grandiose one.

So now we come to the true threat posed by AI: it greatly reduces the costs and risks of mass surveillance and manipulation. Some human beings are quite sure that the world would be a better place if they knew more about our business and policed it better. Mass snooping creeps up unnoticed and becomes a way of life. Then it explodes:

ten hours, kept telling legislators that AI was the answer to fake news, hate speech, terrorist recruiting, security, etc.

As Sarah Jeong noted at *The Verge*, "It's not even entirely clear what Zuckerberg means by 'AI' here."² He likely means "machine learning" (algorithms that can process vast amounts of data very swiftly). But the algorithms are the tools of whoever uses them, as events have dramatically demonstrated. And Facebook seems to be a slow learner, too. In August, Apple officials had to confront Facebook for violating company regulations about apps collecting data on users.³



- In March 2018, **Facebook**, a top-five tech firm, was rocked by an internet-size data privacy scandal. A political research firm, Cambridge Analytica, had improperly gained access to possibly 87 million Facebook user profiles. Facebook lost \$150 billion in share value in July.¹ But when asked to testify to Congress last April about his firm's failure to protect users' personal information from political meddling, CEO Mark Zuckerberg, over the course of



- Then there's **Google**, which reads users' Google mail (Gmail). In 2017, it claimed to have stopped the

practice of scanning inboxes in order to personalize ads. But it still allowed other companies to use apps to scan the inboxes, according to a *Wall Street Journal* report. Would those other firms include the world's biggest company, Amazon? Yes. What about other, smaller companies? It turns out that their apps only need to be "legitimate" and technically viable—a standard any competitive company can probably meet—to be permitted to scan inboxes.⁴

Google also doesn't mind telling you what you should and shouldn't know. Roy Spencer, author of *Climate Confusion*, notes that when he did a Google search for "climate skepticism," the first *ten pages* of results that came up contained links, not to climate skepticism, but to articles *criticizing* climate skepticism. By contrast, a search for "Nazi Party" yielded mostly straightforward information and commentary on Nazi beliefs.⁵

The Ubiquity of Surveillance

But that's just the high-tech world, right? Surely other big businesses are different . . .

Not that you'd notice. Walmart uses a scoring algorithm (NarxCare) for guidance to pharmacists to

China, whose government's computer has only two keys, **Control and Delete**, is in a class by itself in these matters. **Routine recognition of license plates and faces via mounted cameras or smart glasses is now part of daily life.** It surveils citizens on those websites and apps it allows.



help them spot patients who may be misusing legal prescribed drugs.⁶ According to NPR, health insurers are tracking people's race, education, TV viewing, marital status, net worth, and more: "They're collecting what you post on social media, whether you're behind on your bills, what you order online. Then they feed this information into complicated computer algorithms that spit out predictions about how much your health care could cost them."⁷

But surely privacy policies protect us! You hope. In 2018, researchers who investigated the data-sharing disclosures of more than 200,000 websites found that, of 1.8 million data transmissions tracked, only 14.8 percent were sent to the third parties mentioned in the sites' policies; "the rest of the data went to third parties that users wouldn't know about even if they read the sites' policy statements."⁸

But governments wouldn't do that sort of thing, of course. After all, we elect them . . . Very well; West Sacramento, California, was found to be actively monitoring public social media posts in case people were discussing local problems that they were not bringing to the city's attention.⁹ The American Civil Liberties Union (ACLU) obtained documents showing that Amazon is providing technology to and partnering with US city and county law enforcement agencies to enable AI and cloud computing systems to do real-time facial recognition via "internet-connected municipal surveillance cameras."¹⁰ Their efforts may well make the streets

safer, but at what cost to privacy?

Some projects are more ambitious: the US federal government is looking at high-tech alternatives to the controversial proposed border wall with Mexico, including drones, sensors, and facial recognition technology—essentially bypassing the public political debate over policies and goals.¹¹ Duly elected governments, not advanced artificial entities, are in charge of all this surveillance—the usual types, armed with the usual intentions.

Control & Delete

The motives are not always easy to guess, though. In recent years, Russia has aimed considerable social media mischief at the United States. What's the point? Science writer Alex Berezow ventures an explanation: "Russia is a country in inexorable decline. Its economy is roughly the same size as the combined economies of Belgium and Netherlands. Thus, causing trouble keeps it relevant."¹² If that sounds odd, recall that most Americans are too young to remember the Cuban Missile Crisis, when Vladimir Putin's predecessors were all too relevant. Keeping a constant media buzz going in the United States about Russia's intentions is much cheaper, easier, and safer for Putin than trying to install nuclear warheads again in U.S. territorial waters.

China, whose government's computer has only two keys, Control and Delete, is in a class by itself in these matters. Routine recognition of license plates and faces via mounted cameras or smart glasses is now part of daily life. It surveils citizens on those websites and apps it allows. Routers must be government-approved.¹³ And, as commentator Jonah Goldberg puts it, "China made it official: By 2020, the government will fully implement a 'social credit

score' system that will use artificial intelligence and facial recognition technology to monitor, reward and punish virtually every kind of activity based upon ideological criteria—chiefly, loyalty to the state."¹⁴ Even prospective sperm donors, it seems, must "love the socialist motherland" to qualify.¹⁵

But that's just *within* China, right? Wrong. This year, China pressured various international firms into removing references to Taiwan as a separate country from their websites and apps. And it went after T-shirts sold in Canada that "failed to reflect the correct map of China"; i.e., the shirts' maps "omitted" disputed south Tibet, independent Taiwan, and the South China Sea.¹⁶

China isn't keeping the "good news" about Control and Delete to itself. It is currently supplying Zimbabwe, an African country well-known for human-rights abuses, with advanced AI technology, in return for giving a Chinese firm access to the facial-recognition database by which Zimbabwe can now surveil its citizens.¹⁷

A Huge Battle Ahead

Is there something about artificial intelligence that brings out the control freak in people? If so, will the Chinese government's approach win? George Gilder, a philosopher of technology and author of *Life After Google*, thinks not: he argues that, via new technologies like blockchain, people will take ownership of their own data, cutting out the giant "middle man" of current big social media.¹⁸ Already, it is rumored, Chinese people are finding ways to bypass the government. But we should be in no doubt that it will be a huge battle for all of us, one in which technocracy, not technology, remains the true threat. ☉

Notes

1. Katie Canales and Shayanne Gal, "It's not just Facebook: Customer confidence in social media companies has deteriorated overall," *Business Insider* (Aug. 28, 2018): <https://read.bi/2BVwnMt>.
2. Sarah Jeong, "AI is an excuse for Facebook to keep messing up," *The Verge* (Apr. 13, 2018): <https://bit.ly/2JHrias>.
3. Phil Baker, "Facebook-Owned Security App Caught Snooping on iPhones" *PJ Media* (Aug. 23, 2018): <https://bit.ly/2MVfCk6>.
4. Denyse O'Leary, "AI Can Mean Ultimate Big Surveillance," *Mind Matters* (July 12, 2018): <https://bit.ly/2No3g5M>.
5. John Stossel, "Social Media Censorship II," *Townhall* (Aug. 29, 2018): <https://bit.ly/2PiRv11>.
6. Josh Bloom, "Big Brother Walmart Is Watching Your Meds Very Carefully. And Not Just Painkillers," *American Council on Science and Health* (May 11, 2018): <https://bit.ly/2ImO7PN>.
7. Marshall Allen, "Health Insurers Are

Vacuuming Up Details About You—And It Could Raise Your Rates," *NPR* (July 17, 2018): <https://n.pr/2uuuYGz>.

8. Maria Temming, "Website privacy policies don't say much about how they share your data," *ScienceNews* (Apr. 27, 2018): <https://bit.ly/2Nqjb3G>.
9. Timothy Meads, "Creepy: City Deploys System That Scrolls Through Publicly Available Social Media Posts," *Townhall* (May 12, 2018): <https://bit.ly/2Pcl5nV>.
10. Peter Newman, "Amazon and law enforcement are using cloud-based AI for surveillance," *Business Insider* (May 24, 2018): <https://read.bi/2ww0oMX>.
11. Olivia Solon, "'Surveillance society': Has technology at the US-Mexico border gone too far?" *The Guardian* (June 13, 2018): <https://bit.ly/2ldPy9k>.
12. Alex Berezow, "Postmodernism Weaponized: Russia's Assault on American Science," *American Council on Science and Health* (Aug.

28, 2018): <https://bit.ly/2oneFYK>.

13. Sean O'Kane, "China wants to track citizens' cars with mandatory RFID chips," *The Verge* (June 13, 2018): <https://bit.ly/2NwnZ2E>.
14. Jonah Goldberg, "When Will Machine-like Thinking Prompt Moral Panic?", *Townhall* (Apr. 27, 2018): <https://bit.ly/2vU7CNO>.
15. "China sperm bank demands Communist Party loyalty from donors," *BBC* (Apr. 6, 2018): <https://bbc.in/2N0M6Ox>.
16. J. Michael Cole, "China's Bullying of International Firms Reaches New Low With Gap T-Shirt Incident," *Taiwan Sentinel* (May 15, 2018): <https://bit.ly/2LDYklj>.
17. Denyse O'Leary, "Will AI Liberate or Enslave Developing Countries?", *Mind Matters* (Aug. 20, 2018): <https://bit.ly/2N5HRI4>.
18. Denyse O'Leary, "George Gilder: Life After Google Will Be Okay," *Mind Matters* (Aug. 14, 2018): <https://bit.ly/2C1lj0B>.

★ Be on the
RIGHTS
side of history

Who we are:

The RIGHTS Party

What we believe:

America is *not* a
special nation,
a blessed nation,
or a model nation.

But it is a RIGHTS nation.

**And as human beings living in
a RIGHTS nation, we hold
these truths to be self-evident:**

You are entitled to

a fulfilling sex life
a committed spouse or partner
loving children or no children
a satisfying spirituality
a house in a safe neighborhood
good health
a fulfilling job
recognition and awards
benefits from the state

regardless of your

fetishes or fixations.
personality, desirability, or availability.
relationship status or fertility.
believing in God or joining a church.
willingness to cooperate in a community.
eating or exercise habits.
dependability or industriousness.
skills or accomplishments.
citizenship status.

The RIGHTS Party ... Creating the kind of government that will give you what's yours.

Vote RIGHTS 2020



Shame Free

Ty Wyss: Beloved Son, Gentle Iconoclast

by Terrell Clemmons

Based on what he saw growing up, Tyler (Ty) Wyss thought being male meant you liked to hunt, fish, farm, work on cars, use women, and drink beer. But he wasn't interested in any of those things. The male world felt strange to him, and he was more comfortable relating to his mom. He knew what his anatomy was, though, and somehow adopted the idea that he was a sorry excuse for a male.

When he was nine, an older boy started sexually abusing him. It was repulsive, but he found himself returning to situations where it could happen again. It felt good to be "loved" that way, and it gave him a feeling of connection with the male world that had always felt so strange. One day in junior high, he was walking to lunch when he stopped dead in his tracks. *Oh God*, he whispered to himself, *I'm gay*. And since he knew he hadn't *chosen* to be gay, he figured he must have been born that way.

The abusive relationship continued until he separated himself from it at age sixteen, and about a year later, he came out to a friend through an online chat session. When his mom saw the open chat window, she came to his room. "Ty, why are people calling you gay?"

"Because, Mom," he said, dropping his voice, "I am."

Did he really just say that?

It was a heavy moment, and Ty knew he'd crossed a Rubicon. He couldn't take it back even if he wanted to, which he did not. Either way, life would never be the same.

Out & Ousted

That all happened on a Thursday. Ty's parents were good parents who loved their son, but they

were not okay with this news. Often they would go to a local bar on weekends, but the following Sunday, they went to church. Mostly, they wanted the pastor to talk to Ty, but something different happened. They became believers in Jesus.

For Ty, coming out provoked a crisis as well. For years, he'd been carrying on two different lives, and now, suddenly, the inner and outer worlds he'd been vigorously keeping separate had collided. He'd been a model kid—a straight-A student, active and successful in extracurricular activities, and overall a respectful oldest child who never gave anybody any trouble. He was used to applause and being on the inside of things. Overnight, all that changed. Although his parents were upset, they reaffirmed their love for him, but the rest of the world was another story. He got called fag and sissy and queer. He found himself a complete outcast—not just *on* the outside but *pushed out* because he was hated, and people didn't want him around. It was a hard reality for a seventeen-year-old to come to terms with.

And then there was the God factor. Ty had always believed in God, and when his parents started going to church, he often went with them. But this provoked a whole new level of existential be-

wilderment. Somewhere he heard it said that gay people automatically went to hell. *Why would God make me gay and then tell me to go away?* he wondered. Gay was the only way he knew how to be. He'd even prayed to God, as best he knew how to pray, and asked him to take it away. When it didn't go away, what was he supposed to do? *Was God unable? Did he not care? Or, was he not even there?*

Out & Proud

Answers were not forthcoming, and when Ty caught himself flirting with suicide, he came to a decision: *Enough of this. I'm gay, and it's just going to have to be okay.* Better to be alive and gay than to die trying to be straight. He called his parents, their new pastor, and some Christian friends around him and put it to them straight. "Look," he said, "I'm gay. And I'm sorry, but I'm not going to try to change that about me."

And with that resolve, he went in search of a place where he could belong. By this time, he'd taken some comfort in gay characters he saw on sitcoms; at least he



Ty Wyss

mostly sex-oriented, but he wasn't sure what to do with them. What he really wanted was community.

As he cast about, trying to understand what it meant to be gay, he eventually found acceptance and a new kind of freedom in the gay community. He was only living one life instead of two, and everything that used to be shameful was now celebrated. More importantly, he found there the male affirmation he'd always craved. By the time he started attending Ohio University, he was full-on

into the gay scene—marching in gay pride parades, going to gay bars and clubs, even holding hands with his boyfriend outside of gay venues—all in all, totally out and proud.

Out & Conflicted

Well, almost. In college, he was out in every area of student life except one—the Cru Bible study he went to on Tuesday nights (he knew what the church taught about homosexuality). He

really wasn't trying to live in two worlds again. He was just still, curiously, interested in God. Before going to sleep at night, he would sometimes "check in": *Are we okay, God? If I've done anything wrong, would you please forgive me?*

Meanwhile, he also went to his parents' church every now and then, often still in the clothes he'd worn to the club the night before, and there two strange and wonderful things took place. First, contrary to the prevailing narrative about small-town churches rejecting gays, he was wholeheartedly welcomed. Kind people, many of whom were well aware of the life he was living and what he'd been doing the night before, would embrace him with a genuine, "I'm so glad you're here."

Second, given an atmosphere where he felt welcomed enough to stay, something supernatural started coming on. Sitting next to his dad, no words having passed between them, Ty felt the presence of the Holy Spirit fill his heart so full he didn't know what to do. It was something he couldn't have resisted even if he tried. *I didn't ask for this, God*, he thought, white-knuckling the pew in front of him. *I don't want anything to do with you. I don't even know why I'm here. Would you please just go away?*

Same-sex attraction wasn't his biggest problem. **The problem, he insists, was the idolatry of heart that was seeking fulfillment in something other than God.** "When I surrendered my sexuality, I gave up my idols."

was not some alien creature alone in the middle of Ohio. He searched online and found plenty of porn and gay chat rooms that were

student life except one—the Cru Bible study he went to on Tuesday nights (he knew what the church taught about homosexuality). He

Meanwhile, life outside church was getting out of control, too. Sexual relationships with men made him feel loved and affirmed in the moment, but then disgusting, dirty, and used afterward. As he went from partner to partner, looking for just the *right one* that would satisfy his heart, the relationships got shorter and shorter until one morning he woke up next to a complete stranger. He had no idea how he got there and no idea how to get home.

Back in his dorm, he had a “come to Jesus” talk with himself. “You are disgusting, and I cannot stand you,” he said to the face in the mirror. Being gay wasn’t the issue. He was fine with that. The problem ran deeper than sex: out of the poverty of his own heart and soul, he had been reduced to just one face in a blur of broken, needy people using other broken, needy people, with none of the souls behind the faces ever finding satisfaction. *I’m a slave to this*, he realized.

Surrendered

At that point, he cried out to God, not because he wanted to be

straight, but because he wanted a new master. More than that, he wanted that fullness that had come to him in church—whatever *that* love meant, even if it meant surrendering his sexuality, was what he wanted. *God, I don’t know what you want to do with this. It’s a pretty broken life, but here it is. I just want peace.*

And the peace that passes all understanding flooded in. No condemnation, no scolding, just the love of a Father ready to satisfy the desires of his son’s heart. It was as if God were simply inviting him to know him and to walk with him without shame. *My God*, he thought, *what have I been missing my entire life?*

Nothing else changed. The attractions didn’t go away. The mess of a life was still there, but God became, from that time forward, his ever-present help in time of need.

Free at Last

He finished his freshman year at Ohio University and enrolled in Masters Commission, which is a discipleship program with the Assemblies of God. After five years

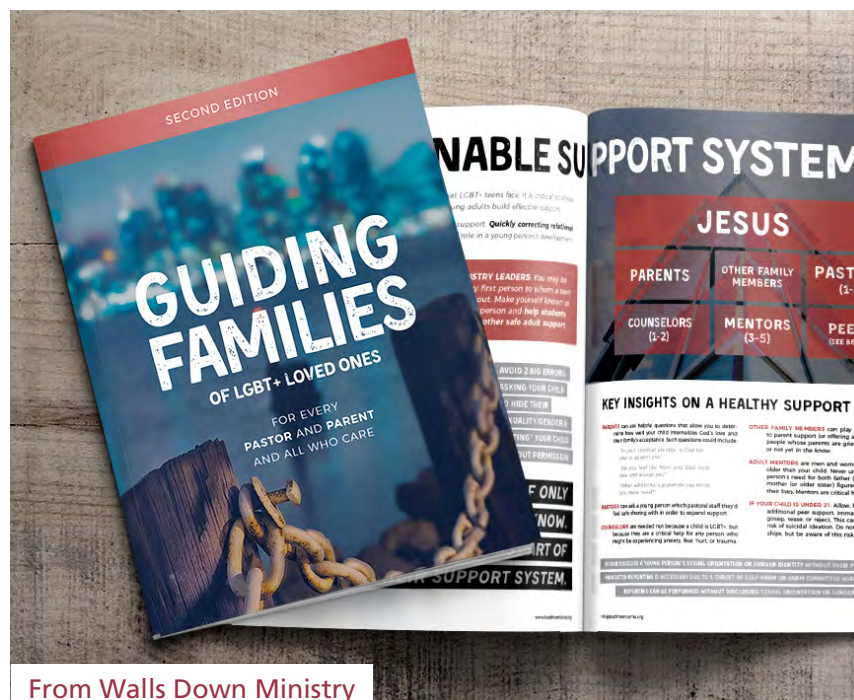
with Masters Commission, three as a student and two as a staff member, he completed his undergraduate degree at Liberty University and got a master’s in counseling at Indiana Wesleyan University.

During the Masters Commission years, God brought Rachel into his life. Ty wasn’t in the market for a female companion. He wasn’t even particularly attracted to women, but there she was. And even after he told her his whole backstory, she was still there, drawn to him in large part because she saw his intimate relationship with God. And Ty felt his own heart opening up to love her, despite himself. If God had a gift in mind for him, who was he to reject it? They were married in 2008, and as God began to heal areas of masculinity in *him*, he grew to more fully appreciate the feminine beauty in *her*, which was so different from him.

Today Ty divides his time between private counseling and Walls Down Ministry, which he launched in 2013 to help conservative churches love and serve LGBT people well. He refuses to say what many people want to hear him say—that God delivered him from same-sex attraction. Because same-sex attraction wasn’t his biggest problem. The problem, he insists, was the idolatry of heart that was seeking fulfillment in something other than God. “When I surrendered my sexuality, I gave up my idols.”

All of us are prone to disordered desires and idolatry of the heart. “And freedom,” he tells people, “is not the absence of struggle.” Freedom is when God is Lord over that struggling area of your life.

An ever-so-gentle cultural iconoclast, he doesn’t identify as gay or straight, either. Rather, he identifies as a *son*—a redeemed son of God whose heart has been set free. ☉



From Walls Down Ministry

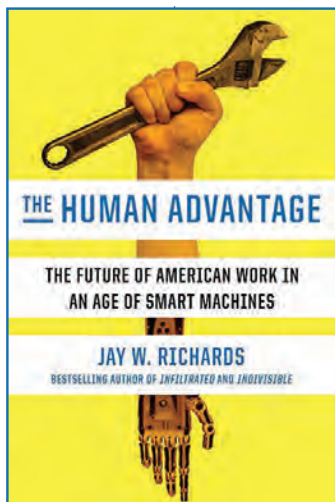
Help Still Wanted

The Human Advantage: The Future of American Work in an Age of Smart Machines by Jay W. Richards

reviewed by Terrell Clemmons

We live in an age of increasingly rapid change. This means challenges and opportunities will continue to come at us in breakneck succession. One major fear making its way into the public discussion these days goes something like this: Are we going to be replaced by *machines*? Will there be mass unemployment because there's nothing left for people to do? Do the mechanizations of today portend the demise of humanity tomorrow?

This myth of the machine takeover is the primary, overarching target of *The Human Advantage: The Future of American Work in an Age of Smart Machines*, by economist and Catholic University professor Jay W. Richards. The short answer to all those questions is *No*. But as machines augment and replace more and more menial work, those people who learn to accentuate and capitalize on *what is uniquely human* will be the ones best poised to prosper through the flux.



"is more universal but also less concrete: *the collaborative creating and sharing of value itself*." And this is something machines cannot do. Only humans can innovate and create.

Above all else, he says, it is *human virtue* that leads to human flourishing. Many virtues reflect old-fashioned, common-sense wisdom—humility, honesty, hard work, gratitude, faithfulness in marriage, and respect for others. In addition to these basics of good character, Richards identifies five virtues that will especially help set venture-some entrepreneurs up for success in an information economy:

- **Courage**—the willingness to risk failure
- **"Antifragility"**—by this term, Richards means more than resilience; he means the ability

to *grow through* failure and suffering

- **Altruism**—providing benefit and value for others
- **Collaboration**—working with and learning from others
- **Creative freedom**—channeling human ingenuity into innovative goods and services

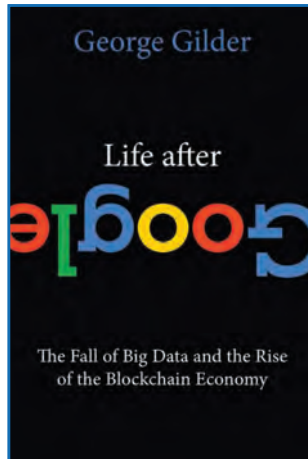
Richards devotes a full chapter to each of these character traits and argues that, while pursuing a life of virtue will inevitably involve struggle, it is the path to true happiness: as Saint Thomas Aquinas wrote, "Happiness is secured through virtue."

Along the way, Richards debunks several unhelpful myths that impede human growth and prosperity: the *zero-sum-game* myth (the idea that one person's gain means another person's loss); the *follow-your-passion* myth (far better—and more promising—to look for ways to meet the needs of others); the *post-capitalist* myth (economic activity isn't necessarily based on greed, Richards says, because creating value with others is a uniquely human endeavor that brings its own rewards); the *libertine* myth (the idea that freedom means getting to do whatever we want); and the mother of all modern myths, the *materialist* myth, which says that humans are nothing more than highly evolved matter-and-energy machines.

In simple terms, the American Dream has always been about *earned success*. And virtue—always the unsung hero of the American Dream—will be more vital than ever in our higher-tech future. The liberating, invigorating, great good news is that our hyper-connected information economy provides endless new ways to pursue the creation of valuable goods and services, with ever lower barriers to entry. "Pursue happiness in this way," Richards concludes, "and you will find a way, perhaps a unique way, to live the American Dream." ☺

Virtue Is the Key

Historically, there have been three versions of the American Dream. The first American Dream, pursued by courageous, risk-it-all immigrants, was owning a family farm. The second, largely achieved by their descendants, was owning a home. The third, Richards says,



Life After Google: The Fall of Big Data and the Rise of the Blockchain Economy

by George Gilder

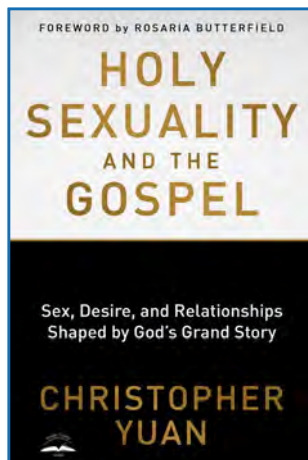
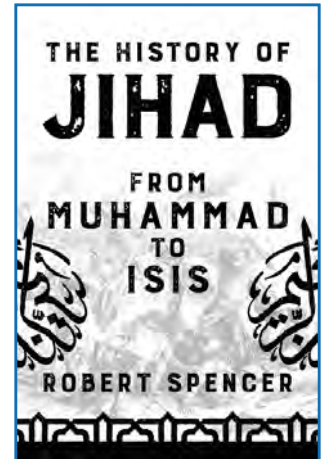
Even as the high wizards of tech predict a fusing of humanity with machines, visionary economist George Gilder says the current model of computer and network architecture is unsustainable and already in decline. Security especially, the Achilles heel of e-commerce, calls for a new model. Enter the cryptocosm, the new world of blockchain and its derivatives, which Gilder says will transform the economy and the internet.

The History of Jihad: From Muhammad to ISIS

by Robert Spencer

Spencer chronicles fourteen centuries of aggressive, expansionist jihad, heavily footnoted to Islamic texts and historians contemporary with the events. From Mecca

to Arabia to Persia to India to Africa to Europe, to the U.S., jihadis have presented non-Muslims with three options: conversion, subjugation, or death. This is a critically important book for understanding geopolitics and for reaching out to well-meaning but historically ignorant Muslims and their apologists.



Holy Sexuality and the Gospel: Sex, Desire, and Relationships Shaped by God's Grand Story

by Christopher Yuan

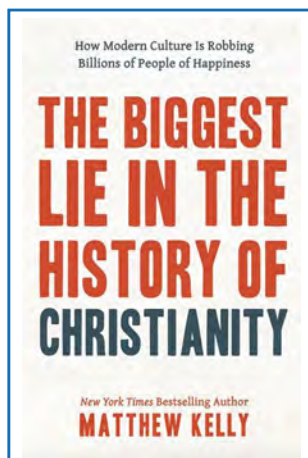
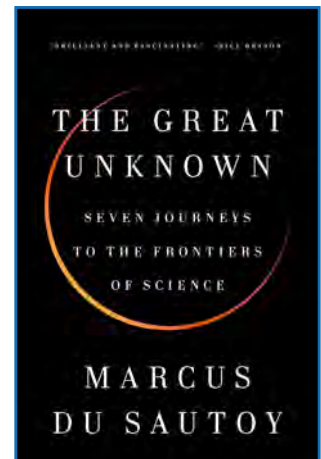
Moody Bible Institute professor Christopher Yuan lived as a gay man for several years until he became a Christ-follower after reading a Bible he pulled out of a prison trashcan. This book combines a sound theology of sex with a practical guide to helpfully engaging people in our sexually confusing times. It includes a study guide and important suggestions for reaching out and loving gay people well.

The Great Unknown: Seven Journeys to the Frontiers of Science

by Marcus du Sautoy

An Oxford mathematician discusses seven cutting-edge fields of science: chaos, matter, quantum physics, the

universe, time, consciousness, and infinity. Du Sautoy is a full-fledged materialist, and if you keep that in mind as you read, his explanations of what is *known*, what is *unknown*, and what *speculations* are being proposed (some of which are bizarre) make for a good overview of the state of scientific inquiry today.



The Biggest Lie in the History of Christianity: How Modern Culture Is Robbing Billions of People of Happiness

by Matthew Kelly

The biggest lie, Kelly says, is that holiness is not possible. It *is* possible, he says, and he encourages readers to pursue living a life of "Holy Moments," which will (1) make you happier, and (2) ultimately change the world. He may be oversimplifying the world-changing effect, but either way, this is an inspiring contemplation on the beauty and power of simple, Christian living.

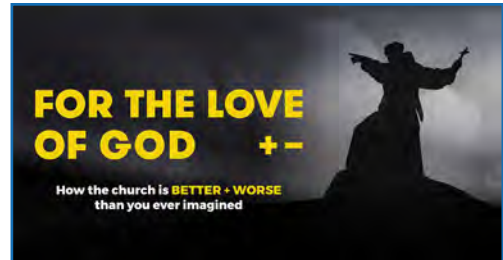


The Fantasy Makers: J. R. R. Tolkien, C. S. Lewis, and George MacDonald

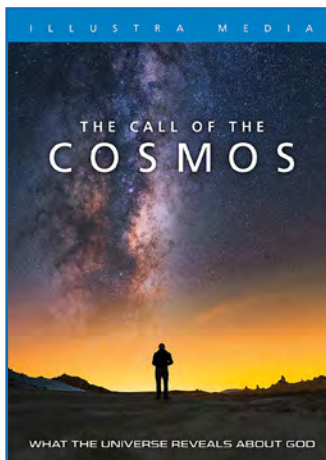
Some of the best imaginative literature has been written by Christians. Tolkien and Lewis are well known and immediately associated with Middle-earth and Narnia. But these two authors were preceded by the nineteenth-century Scottish minister George MacDonald, the first modern-era fantasy writer. This engaging film looks at all three authors, their enduring works, and the vital connections between literature, imagination, and Christian faith.

For the Love of God: How the Church Is Better and Worse than You Ever Imagined

The history of the West is tied up with Christianity, but the implementation of it has been mixed. Christian-



ity according to Jesus is a beautiful masterpiece. Some people represent it poorly, others well, though not without flaws. Presented by the Center for Public Christianity in Sydney, Australia, this film seeks to engage the public with a clear, measured, and respectful picture of the Christian faith and the way it can impact all of life for the good.



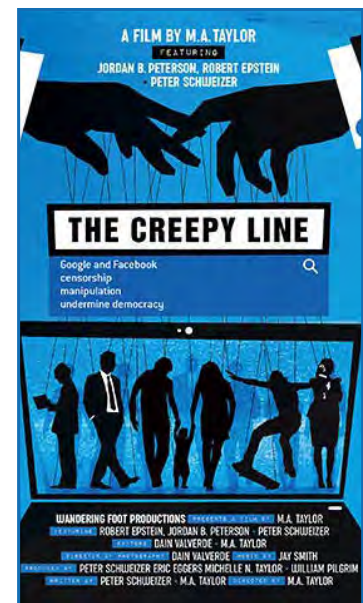
The Call of the Cosmos: What the Universe Reveals About God

Through a combination of actual video and CGI animations, this one-hour film lays out in stunning array several features of the universe that defy materialistic explanations. Does our planet just happen to be a spectacular place where life can flourish? Or was it intentionally designed to be that way? Ultimately, everyone draws his or her own conclusion. This is one to buy and keep. If possible, watch it on a large screen.

The Creepy Line

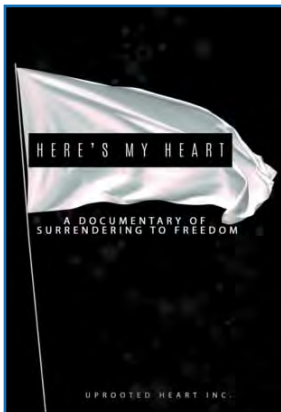
Former Google CEO Eric Schmidt said Google's policy was to "get right up to the creepy line but not cross it." Google and Facebook don't *sell us anything*; they *collect data* from us, monetize it, and present back to us their curated view of the world. All of this can be highly manipulative if we don't understand how they work. (And who

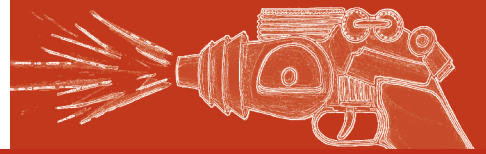
defines "the creepy line" anyway?) This film is highly informative for everyone who uses these tools.



Here's My Heart: A Documentary of Surrendering to Freedom

Mary Jenna (MJ) Nixon understands same-sex desires, as well as the pain and joy of surrendering her heart's desires to God. Now a women's ministry leader at Refuge Ranch, she produced this beautiful film featuring twelve people who, like her, found a far more satisfying love in Christ than their LGBT lives had ever provided. There's no preachiness here; just twelve rich, deeply human, life-giving stories.





The Faith of Mariano Rivera

The Hammer of God Heads to Cooperstown

by John Stonestreet & Roberto Rivera

Since 1936, 323 players, managers, executives and umpires have been elected to the Baseball Hall of Fame in Cooperstown, New York. What they all have in common is that none of them, not even Babe Ruth, Willie Mays, or Joe DiMaggio, was elected unanimously.

On Tuesday, January 22, 2019, that changed. Pitcher Mariano Rivera of the New York Yankees became the first player elected unanimously to the Baseball Hall of Fame. It's a fitting tribute to the man *Esquire* magazine dubbed "the Hammer of God," for his achievements on the mound.

Now even if you don't like baseball, you should rejoice with Rivera and his family, because while he may have been God's "hammer" on the field, he was and remains God's faithful servant both on and off it.

Rivera was what is known as a "closer." That means he pitched exclusively in those high-pressure situations when the game was on the line. He was expected to "close" the door on the other team. It might sound simple, but any baseball fan will tell you that few pitchers, even the most talented ones, can stand up to that kind of pressure for very long.

Rivera did it for seventeen seasons. According to Tim Kurkjian of ESPN, the gap between Rivera and whoever is the second-best closer of all-time is greater than the gap at any other position in baseball history.

That's part of the reason one former player called Rivera "the most beloved Yankee," which, given the franchise's storied history, is saying a lot.

But it's not the only reason. The other part is Mariano Rivera the man. The *Esquire* profile said that "he is modest and mild. He is neat and quiet, while other closers are not." He is regarded as the ultimate "team first" player, who summed up his job as, "I get the ball, I throw the ball, and then I take a shower."

Throughout his career, Rivera was as well known for his Christian faith as for his legendary "cut fastball," which was virtually unhittable even though hitters knew it was coming.

In fact, Rivera will tell you that his faith and his fastball are linked. He claims God gave him the pitch. In his own words, "I do not spend years searching for this pitch. I do not ask for it, or pray for it. All of a sudden it is there, a devastating baseball weapon."

As "devastating" as that weapon was during the regular season, it was even more so during the playoffs. In sixteen postseasons, Rivera allowed fewer earned runs than the number of men who have walked on the moon.

Yet he expressed thanks to God for his most high-profile failure, too. In the 2001 World Series, he gave up the run that cost the Yankees the series, but he pointed out that if the Yankees had won, his teammate Enrique Wilson would have been on a flight that



ended up crashing and killing everyone on board. Since they didn't win, Wilson took an earlier flight. "I am glad we lost the World Series," Rivera said, "because it means that I still have a friend."

There's a lot more I could tell you: from the glove inscribed with Philippians 4:13 to his many charitable endeavors. Then there's the documentary, *Being: Mariano Rivera*, about his last season, which aired on Showtime. In many ways, it was one long testimony to his Christian faith.

It's gratifying that the first man to be unanimously elected to the Hall of Fame is celebrated as much for his character as for his amazing career. It's even more inspiring that the first man to be unanimously elected to the Hall of Fame has never been shy about telling others about the One who made both possible.

In an era when the word "hero" is either tossed around haphazardly, debased, or made to seem hopelessly out-of-date, the real deal has received the honor he was due, honor he will undoubtedly ascribe to his God. ☉

—Copyright 2019 by the Colson Center for Christian Worldview. Reprinted with permission from www.BreakPoint.org.

It's time you found out your SOCIAL CREDIT score.



Social Credit
Star



97

Monitor your social credit score online and get tips for increasing your score and thus securing a better future for yourself and your loved ones.

55

68

22

Be a Social Credit Star . . .

and help create a safer space for all!

Shout your virtues online to prove to the world that you are a trustworthy citizen and that you don't have any wrong-wing tendencies.

check your social credit score today at
www.socialcreditstar.gov

Your social credit score will prove to be increasingly important in our new technocratic future. Your "friends," neighbors, and government are watching! Perks abound for those who prove their trustworthiness to the group.

A gold star rating means more opportunities in life, love, and happiness:

- ★ Live in the best neighborhoods!
- ★ Meet the best online dating prospects!
- ★ Experience shorter lines at the airport, movie theaters and the DMV!

Odds of life's spontaneous
generation on earth:

1 in 10^{400}

Odds your friend will
spontaneously subscribe
to *Salvo*:

IMPOSSIBLE

—without your help!

Are you a SALV^o fan?

Then we need your help! *Salvo* is in its 12th year of operation—almost 50 issues published—thanks to our wonderful supporters! But there are more potential *Salvo* readers out there and we are asking for your help in reaching them. **Ways to promote *Salvo*:**

Not a subscriber?

SUBSCRIBE!

GET a one-year subscription to *Salvo* (four issues) PLUS full access to the *Salvo* online archives for \$29.99.

Know someone who would like *Salvo*?

GIFT IT!

GIVE a one-year subscription to *Salvo* (four issues) PLUS full access to the *Salvo* online archives for \$29.99.

Online much?

READ! LIKE! SHARE!

VISIT us online. Hundreds of articles are available for your reading pleasure. Share on Facebook and Twitter.

Got connections?

HAND OUT SAMPLES!

SHARE with your church group, school group, or whoever. We'll send you 30 copies of a recent issue to hand out.

Visit salvomag.com to subscribe today!