

Twenty-Five ASA Fellows and Editors Tell of *PSCF* Articles That Changed Their Lives

Every breath counts, as does every article that has appeared in the 75 years of *PSCF*. Each article has convinced the author, peer reviewers, and editor that it is clear, well informed, new, and important. Reading them consistently has been like breathing. One does not necessarily remember every specific breath, but each one adds to sustaining and forming and empowering life and service.

We do sometimes remember, though, a particular breath that was bracing and exhilarating such as salt air when arriving at an ocean beach, fresh-baked bread in the winter, the first mown grass in the spring, or a waft of honeysuckle in the summer. As individuals in different disciplines, living in different contexts, different articles have meant the most to each of us. I have asked each of the ASA Fellows and editors to remember one such article that struck them at the time, and if it still speaks to them vividly now.

No doubt, different contexts over the coming years might bring to mind other articles, but the following is a snapshot of what today they remember as particularly noteworthy in their own walk. It should be noted that Fellows, who all have marked accomplishments to be named Fellows, will of course tend to be well into their years of service. Many articles they cite as most influential were often read in their most formative decades. We do not know which articles now being read by current members in their 20s, 30s, and 40s will be cited as most important to them when they reach the life achievement level of Fellows.

The articles that follow are listed in chronological order—from sixty years ago, right up to 2022.

As editor, I am partial to every piece that has been published in *PSCF*. But what follows is an opportunity for ASA Fellows and editors to celebrate particular essays that have piqued their interest, even changed their lives, and no doubt the lives of other readers too.

James C. Peterson

Editor-in-Chief

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1964, 1976

V. ELVING ANDERSON, "Christian Commitment and the Scientist," *JASA* 16, no. 1 (1964): 8–9; and RICHARD H. BUBE, "The Philosophy and Practice of Science," *JASA* 28, no. 3 (1976): 127–32.

As a researcher, reading the scientific literature in my field is routine. It is a necessary part of mastering the current paradigms in order to allow one's own work to build upon and improve upon what is established. This same approach has applied to my posture toward *Perspectives on Science and Christian Faith* (*PSCF*) since first encountering it. *PSCF* has been a constant in my desire to be current in the science and faith conversation.

As a biology undergraduate and a follower of Jesus Christ, in the 1980s I struggled to find resources supportive of a high view of scripture, and a responsible approach to scientific evidence. The *Journal of the American Scientific Affiliation* (*JASA*) was in existence, but I didn't find it. Instead, I was inundated with young earth creationist literature that did not make sense to me scientifically.

This longing remained with me when I began graduate studies in cell and developmental biology at the University of Minnesota in 1988. In God's providence, at that time I had the privilege of meeting Dr. Elving Anderson, nationally known neuroscientist and brain and mind researcher, who was also a member of the ASA. Elving introduced me to the ASA, and generously shared his books and his complete set of paper copies of *JASA* with me. I still recall sitting on the floor of his office, poring over past issues of the journal. I had finally found answers to my questions about science and faith.

As I read through the issues, I took note of a series in the journal titled "Science and the Whole Person," by then *JASA* Editor Dr. Richard Bube. In those essays, Bube teased apart paradoxes, and apparent contradictions, in the science and faith dialogue, with the skill of a literary surgeon. His essays touched on topics as wide ranging as miracles, determinism, abortion, predestination, and prayer. He typically included topics for discussion at the end, demonstrating that he didn't have all the answers, thus modeling an open posture toward the beliefs he

advanced. The series ran in every quarterly issue for seven years.

Richard Bube was professor in the Department of Material Science and Electrical Engineering at Stanford University, with over three hundred scientific publications to his credit. During that time of such prolific scientific productivity, he served as editor for the then *Journal of the American Scientific Affiliation* (now *Perspectives on Science and Christian Faith*) for fourteen years. One essay that left the most lasting impression on me was "The Philosophy and Practice of Science" (September 1976), in which Bube expounded on his view of the integration of what he termed "authentic science" and "authentic theology." I have referred to that essay or some aspect of it continually ever since first reading it over thirty years ago. It has become a science and theology paradigm for me.

After familiarizing myself with the ASA through the journal, and becoming a member, Elving Anderson went on to encourage me, as a young graduate student, to submit an abstract for the upcoming ASA meeting, the 50th anniversary meeting at Wheaton College (1991). At that first meeting, at one of the evening meals, I suddenly realized that the man whose essays I had been reading, Dick Bube, was in attendance. I was awestruck. Eventually I screwed up the courage to introduce myself to him, and in his gracious manner, he invited me to join him for the meal. This began a friendship that lasted until he died. Through the journal, and eventually through his life, Dick Bube had changed my life.

Perspectives on Science and Christian Faith is one of the premier journals in the science and faith scholarly world. From the time Elving Anderson introduced me to the journal, it became a source of information and inspiration. When I began, I had a lot of catching up to do, so from 1990 to 2012, I read every issue in its entirety. To the present, I read at least a few articles in every issue in detail and skim all the rest. This is how the ASA became one of the most important organizations in my life, and *PSCF* became one of my must-read journals.

Mark Strand, North Dakota State University, Fargo,
North Dakota.

Article

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1971

BERNARD RAMM, "Evangelical Theology and Technological Shock," *JASA* 23, no. 2 (1971): 52-56.

As a young Christian in the early 1960s, the framework for my thinking on the relationship between science and faith was molded by Bernard Ramm's book, *The Christian View of Science and Scripture* (1954). Consequently, when several years later I encountered his article "Evangelical Theology and Technological Shock" in the ASA journal (*JASA* 23, no. 2 (1971): 52-56), I was eager to see how he coped with the burgeoning new technologies.

I was immediately struck by his comment that, in the past, the evangelical response to any new scientific idea had gone through the same pattern: following its announcement, it was denounced, but was eventually absorbed into evangelical theology. For Ramm this was tragic. Evangelicals should seek to anticipate what is coming and formulate theological responses in advance of new scientific developments.

In undertaking this task, Ramm admits he is a theologian and has to rely on scientists for the requisite information and prognostications. This takes him into a plethora of areas, many of which have been assessed, and in some cases dismissed, over the intervening fifty years. Ones that caught my attention included cloning, sperm and ovum banks, organ transplantation and brain (mental) death, genetic engineering, chemical and surgical alteration of behavior, and biologically generated increases in life expectancy.

Looking at this 1971 article today, I was struck by the state of the science and the manner in which science popularizers expected them to influence society. Ramm's dependence upon them meant he had to place too much store by their interpretations. And so, helpful as Ramm was, his lack of scientific nous proved a disadvantage. If only more Christian scientists had been available to dialogue with him. Nevertheless, Ramm was a sterling example of a theologian who takes scientific activity and thinking seriously. He paid it respect and regarded it as a legitimate contributor to Christian thinking in the contemporary world.

Ramm, very perceptively, wanted the church to be prepared for forthcoming developments and their implications. Inevitably, though, there is danger in this type of forward thinking since it is associated with speculation and on occasion with grandiose claims. This is where dialogue between theologians, and scientists seeking to be informed by Christian values, comes to the fore.

It is fascinating to reflect on the optimism of those commenting on the scientific developments, and how ill-founded some turned out to be. We are told that people will shop for the kind of child they want; during reproduction, they will be able to eliminate all unwanted genetic traits; and they will have at their disposal chemical bullets to control love, hate, and morality. While it is easy to dismiss these claims as extravagant, each of them contains a grain of truth and we live with their heirs. Ramm was correct in taking them seriously, but a critical eye informed by scientific reality and biblical directives is essential.

At certain points Ramm pushed the theological implications too far. For instance, he argues for the need for a new theology of the Holy Spirit, based on developments in the behavioral sciences and psychiatry. This is because he sees no ceiling to the control, shaping, and modulation of human behavior in a future technologically dominated world. His aim is to understand the continuity of the work of the Holy Spirit with human technological control over nature. While his intentions are good, he may have been giving too much to optimistic interpretations of technological innovations.

And yet Ramm is far from smitten by technology, since he is concerned that it will lead to excessive degrees of automation that, in turn, will usher in a society where people retire at 50. Technology will, he argues, plunge us into a pandemic of apathy and a loss of meaning of life. The answer for Ramm is the Christian Church with its message of life's meaning in Christ.

While there is much in Ramm's analysis that suffers from the passage of time and his undue reliance upon science writers with their unalloyed pleasure at the marvels of the technological bliss to come, he is prepared to engage with this world. Some of the future possibilities will not come to pass, and some may seriously lead us astray. But it is important to keep in contact with the claims and counterclaims.

Otherwise, Christians will be on a path of blissful ignorance, ignoring the trends and challenges around them, and failing to cast a Christ-centered eye over them. Ramm is to be congratulated for showing the relevance of theology and that some theologians are open to ongoing debate over science and its implications.

D. Gareth Jones, University of Otago, Dunedin, New Zealand.

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1973

CARL E. ARMERDING, "Biblical Perspectives on the Ecology Crisis," *JASA* 25, no. 1 (1973): 4–9.

I first ran into the journal in a college library. I have long been something of a library hound, enjoying a fine collection and walking the shelves to see what might look interesting. I was a transfer to a Christian college from two secular colleges, and had not even heard of any such thing as "Christian scholarship" or "faith and learning," being a recent convert to Christianity from a background in math and physical sciences. The *JASA/PSCF* ("the journal" herein) was displayed in the new issues rack near the entrance. Imagine how wonderful it was for a young Christian with my background to run into an entire *journal*, a whole *association*, devoted to this new idea that robust Christian faith and serious, academic and scientific research and inquiry can and should belong together! While I could not afford to go to any conferences, I did read each new issue with great interest, and perused the back issues in the serials collection. The library had the entire print set, I was happy to discover.

I used the journal as a kind of introduction to the field of science and Christian theology. Often I would find an author introduced, or a footnote to a standard work, in its pages. That would send me to the card catalog (!) (soon to be the computer terminal), to seek other works by the same author. Sometimes I would find the book itself in the good old Southern California College library (now Vanguard University). The librarians were friendly and helpful, offering to order books from other libraries if they did not have it. Looking back, I am sure they found it odd to find a student who would come across a journal, and start to read it right away. I did that a lot with the journal, new issues and old volumes alike.

It was in the pages of the journal that I was introduced to important topics. Serious and learned debate about origins and evolution was there, to be sure, but also discussion about a range of scientific issues I simply had never thought of from a faith perspective. Looking back at those issues in the 1970s and 1980s, I see some old friends and much respected scholars and authors I first discovered there. Bernard Ramm, Ron Numbers, Richard Bube, Al Plantinga, J. W. Haas, George Murphy, and Mary Stewart Van Leeuwen were scholars I would learn from for a long time, in articles and in important books. New areas of science and theology were also found in its pages, or at least, new to me! Grounded in the physical sciences, I first learned about the Bible and our ecological crisis in an article from 1973 by Carl Armerding (a fine OT scholar as I later discovered). Then of course I had to go back and read the articles he was responding to (by Kenneth Hare and Richard Wright).

In the journal I also discovered that the social sciences, too, can and should be integrated or in dialogue with Christian theology and sacred scripture. In short, reading the pages of the journal was an access point for theology and the sciences. Thinking back to those days, I am grateful to God, and to these early Christian authors, scholars, editors and others, who created in the journal a forum for scholarly, thoughtful, engaging, and respectful dialogue in an area of research and learning I would spend many decades enjoying. Thank you!

Alan G. Padgett, Luther Seminary, St Paul, Minnesota.

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1979

DAVIS A. YOUNG, "Flood Geology Is Uniformitarian!" *JASA* 31, no. 3 (1979): 146–52.

A coworker at the major oil company where I worked handed me a dog-eared and underlined copy of an article from the *Journal of the American Scientific Affiliation*. It was not my introduction to the author, Davis Young, whose book *Creation and the Flood* (Baker, 1977), I had recently read. But "Flood Geology Is Uniformitarian!" was my introduction to the ASA and its journal. Now, uniformitarianism presumes that Earth history can be interpreted from the study of rocks having formed by presently

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

observable geologic processes, or otherwise by processes conforming to natural laws and conditions. Young Earth Creationism and flood geology presume unfamiliar catastrophic and often miraculous (unnatural) interventions.

The relatively short article provided both philosophical and historical contexts to the propositional concerns that mainstream geologists, including Christians like me, have with flood geology as promoted by its advocates. Using their examples, Young explained how flood geologists misunderstood the practical meaning and application of uniformitarianism in their rejection of mainstream geological interpretations and their catastrophist re-interpretations. He also responded to their theological proposition that uniformitarianism was, at its base, unbiblical. His historical review distinguished methodological uniformitarianism, as practiced by mainstream geologists, from substantive uniformitarianism, a variant that would presume no catastrophic processes in the formation of rocks or landscapes. Young states,

The fact of the matter is that flood catastrophists spend considerable effort in beating a dead horse, because it is highly questionable whether any significant number of geologists has held to anything like substantive uniformitarianism for a number of years. (p. 149)

Of historical note, the discovery of the global deposit of meteoric “dust” attributed to the mass extinction of the dinosaurs some 66 million years ago would be published in 1980. The Chicxulub Impact has become the posterchild for methodological uniformitarianism that embraces the possibility of natural catastrophe, even worldwide.

Finally, Young provides examples of how flood geology is full of uniformitarian applications, in its advocates’ interpretations of various geological features, such as fossil graveyards and submarine debris flow deposits (turbidities). And when all else fails, Young points out the biblical catastrophists’ regular appeal to miracle, in order to compress the geologic timescale from billions to thousands of years duration.

This article appears to be Davis Young’s first in *JASA*. His articles effectively advanced earlier journal contributions pertaining to the geosciences by Laurence Kulp (1950s), William Tanner (1960s), and Daniel

Wonderly (1970s). More recently, Keith Miller and Carol Hill are geologists who have written provocative *PSCF* articles that advance the geoscience-faith dialog yet further.

Stephen O. Moshier, Emeritus, Wheaton College, Wheaton, Illinois.

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1984

CONRAD HYERS, “Dinosaur Religion: On Interpreting and Misinterpreting the Creation Texts,” *JASA* 36, no. 3 (1984): 142–48, and CONRAD HYERS, “The Narrative Form of Genesis 1: Cosmogenic, Yes; Scientific, No,” *JASA* 36, no. 4 (1984): 208–15.

I still remember when the September 1984 issue of what was then called the *Journal of the American Scientific Affiliation* arrived in my mailbox. We had just moved to Nashville for my first academic job after defending my dissertation at Indiana University in August. My initial thought was, I’m glad the ASA got my address change processed in time for this issue. On the way back to our apartment, I glanced at the table of contents on the back cover and quickly noticed an article called “Dinosaur Religion: On Interpreting and Misinterpreting the Creation Texts,” by an author I did not recognize, Conrad Hyers. Oh well, I thought, an article attacking creationism. I was hoping for something different. Maybe I’ll read it, maybe I won’t.

I decided to read it—and I couldn’t put it down. It was all new to me, and it transformed my thinking right down to this day. Once I started teaching students at Messiah about science and the Bible a few years later, I assigned it in every course where it topically fit.

As it happens, I never met Hyers, a Presbyterian minister with a doctorate from Princeton Seminary who taught religion for many years at Gustavus Adolphus College. If I had, I would have told him how important his article was to me and my students—many of whom responded to it just as I did: these ideas are really important. Why haven’t I heard this before? Although he did not use terminology associated with the “Framework View” of Genesis, that is basically what he believed (a second article of his published in the next issue nails this down). What

struck me most, was his emphasis on what Genesis is really about:

... a radical and sweeping affirmation of monotheism vis-a-vis polytheism, syncretism and idolatry. Each day of creation takes on two principal categories of divinity in the pantheons of the day, and declares that these are not gods at all, but creatures—creations of the one true God who is the only one, without a second or third. Each day dismisses an additional cluster of deities, arranged in a cosmological and symmetrical order. (p. 147)

To borrow words from St. Luke, scales fell from my eyes. Suddenly I understood that all the commotion about the day-age theory, the gap theory, and recent creation in six literal days was just so much noise. None of that had anything to do with what God was telling us here.

I still don't know why I hadn't heard that before. Bernard Ramm, whose seminal book, *The Christian View of Science and Scripture* (1954), had hitherto been the single most important guide to my thinking about origins, had advocated the "pictorial-day interpretation," a type of "moderate concordism" in which "geology and Genesis tell in broad outline the same story." That's about as close as I could remember to Hyers's view. It's not all that close. For Hyers, Genesis does not even attempt to tell anything remotely like a scientific story: it's about religion, not science.

In nearly forty years since that moment of discovery, I've learned that historical and literary context are crucially important for understanding any text, especially a biblical text. Hyers placed Genesis fully within the worldview of the Ancient Near East. God told the Hebrews exactly what they needed to hear, embedding the crucial message of monotheism in a type of literature they already understood, tweaking elements of existing creation stories to proclaim a profound message that denied the common claims of all those other stories: nothing you see is divine, not even the Sun, the Moon, or the stars overhead. I made them all. Worship me, not them.

What about "dinosaur religion," the words that first got my attention? Here's how Hyers used that term: "When certain scientists suggest that the religious accounts of creation are now outmoded and superceded by modern scientific accounts of things, this is 'dinosaur religion'" (p. 143). He wrote this

before Richard Dawkins became the devil's chaplain, before Stephen Hawking was world famous, and before people started talking about the "New Atheism." Once again, Hyers was spot on target. If dinosaurs evolved into birds, they are in some sense still around. Dinosaur religion certainly is. My debt to Conrad Hyers is ongoing.

Edward B. Davis, Messiah University, Mechanicsburg, Pennsylvania.

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1985

COLIN J. HUMPHREYS and W. GRAEME WADDINGTON, "The Date of the Crucifixion," *JASA* 37, no. 1 (1985): 2-10.

One of the more delightful papers that I encountered in *PSCF*—and one that I still recall from time to time—was a paper by Colin Humphreys and Graeme Waddington on dating the crucifixion of Christ.

This interesting paper made use of celestial mechanics, in conjunction with biblical texts and with what is known as reliable history, to propose that Jesus's crucifixion took place on Friday, 3 April, AD 33. Other dates had been suggested in the past, and (until this paper) there seemed to be no reliable means of further adjudicating between them. What Humphreys and Waddington did was to break this logjam by taking seriously a phrase in the book of Acts quoting the prophet Joel and seeing if our knowledge of celestial mechanics could shed any further light on this issue.

The passage, quoted by Peter at Pentecost, refers to the sun turning to darkness and the moon turning to blood before the great and glorious day of the Lord will come. Rather than interpreting this metaphorically, Humphreys and Waddington note that this is a good description of a lunar eclipse, and that such phraseology (moon turning to blood) appears in other historical documents (for example, after Alexander the Great crossed the Tigris River in 331 BC). The two authors then use celestial mechanics to determine all lunar eclipses between AD 26-33 (the largest range of years during which Jesus could have been crucified) and determined that only one lunar eclipse was visible at Passover time from Jerusalem, and that it occurred on Friday, 3 April, AD 33.

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

Why do I like this paper? This novel interdisciplinary conjunction of various lines of research provides us with important additional evidence of the historicity of Jesus's crucifixion. The specificity of the date highlights the reality of the crucifixion, reminding me (and I hope all Christians), that our faith is based not only on abstract ideas, but on actual historical events. It is also a reminder that while the perils of taking scripture too literally are well known, sometimes we perhaps don't take it literally enough!

Robert Mann, University of Waterloo, Ontario, Canada.

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1990

GEORGE L. MURPHY, "Chiasmic Cosmology as the Context for Bioethics," *PSCF* 42, no. 2 (1990): 94–99.

One of the things that I appreciate most about the journal is its breadth of coverage. It provides insight into disciplines outside of my specialization that nonetheless have important bearing on broader theological and philosophical questions. As a paleontologist and evolutionary creationist, my studies raise important questions about the place of suffering and death in the created order, the nature of humanity as God's image bearers, and how we view the lives and bodies of human persons.

I will highlight three individuals whose writings in the journal have been important in my own thinking. Early in my involvement with the ASA, I found the perspectives of George Murphy to be very helpful in providing a theological context for understanding the evolutionary process. His focus on a Christ-centered cosmology provided a very helpful way to understand the ubiquitous presence of death throughout creation. The Creator is the Crucified, and all of creation reflects the pattern of life out of death. This emphasis on the cross also resonates with Murphy's understanding of *creatio ex nihilo*. God brings about new things where there seems to be no possibility — out of nothing.

I have always been very impressed with the honesty and faithfulness with which Gareth Jones has dealt with the very difficult and intensely emotional questions that surround the beginning and end of life. These ethical and theological questions are rooted in

how we understand our humanity and the image of God. Evolution forces us to think more deeply about how humans image God, and the biology of human development and the impairments at the end of life, challenge us to think how to honor that image in individual persons from conception to death.

More recently, the work of Malcolm Jeeves in neuroscience and evolutionary psychology has been very helpful to me in working through the relationship between our "souliness" and our physical bodies. Central to this is the debate between a dualistic or monistic understanding of persons. I have found his "non-reductionist physicalism" provides a way to acknowledge the growing understanding of the role of brain activity in what we perceive as aspects of our souls, while avoiding a reductionist view that our spiritual experience is "nothing but" the firing of neurons.

The writings of these three individuals, with very different disciplinary expertise, have all contributed to my growth as a scientist and as a Christian.

Keith B. Miller, formerly of Kansas State University, Manhattan, Kansas.

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1994, 1995

JAMES PATTON CLARK, "Fact, Faith, and Philosophy: One Step Toward Understanding the Conflict between Science and Christianity," *PSCF* 46, no. 4 (1994): 242–52; and NATE OLSON, "On Clark," *PSCF* 47, no. 2 (1995): 148.

I began teaching psychological science courses in 1990 at a secular university in Ohio, and then headed over to Malone University as an Assistant Professor in 1994. There, Provost Ronald G. Johnson (who is a physicist by training) was keen to foster my integration of faith with scholarship. So, he introduced me to the American Scientific Affiliation's (ASA) *Perspectives on Science and Christian Faith (PSCF)*.

As a research methodologist, my focus has been on helping students and other researchers develop and refine techniques to test predictions. Early in my days as a professor, I commenced by asking them two questions: (1) "What's the research question?" and (2) "What is your hypothesis?"

In 1994, an essay by James Patton Clark in *PSCF* catalyzed a two-decade transformation in my manner of teaching science. A reply by Nate Olson in 1995 fostered my understanding about some of the big mistakes that scientists make (whether of faith, agnostic, or atheist) when approaching a research question. As Clark asks when considering the strife between science and Christian faith, “Hasn’t science explained the things that used to be explained by invoking God?” (attributing this question to secular scientists). He explores part of the “speaking past each other” that scientists of faith, and those without, do. They fail to apprehend the presuppositions of “the other.” At my first reading of Clark’s paper, I thought, “There you go. We are talking past each other.”

My students were learning and demonstrating acumen for research; we began with a research question. They generated hypotheses, tested them, and analyzed the data ... just as the best textbooks suggest. Nevertheless, many of them did not care about their research findings, and it became commonplace for students to negate their own results in their final reports. “Well, my study was well-constructed, but my findings were not statistically significant. However, I think this is just an accident, because I really do believe my prediction that [BLANK] is true.”

Year after year, I have had this experience and some feelings of failure as a science professor. How could students master the careful, stringent techniques of behavioral research without trusting them? They learned about Kuhn’s protestation against all science as “normal science” and epiphany that some advances come about through paradigm shifts. I taught them about good research and the nature of change in science from slow advances to paradigm shifts. They were versed in the terms and how to apply them. So, why didn’t they have faith in their own findings?

At some point, I went back to Clark’s and Olson’s essays and began to think that my folly was in *starting at the beginning* of the research study with my students, rather than *starting before the beginning*. According to Clark, naturalism rules science and includes the assumption that all things commit to the natural laws of the natural world. Adding Olson’s view, not only do we need to understand each other’s

pre-suppositions (à la Clark), but we must comprehend that *everyone has a creation story*, i.e., a set of ideas about what exists and how it came into being. After years piloting various pedagogies, around 2014 I had a moment of clarity about this as it pertains to teaching: *start before the beginning and learn what your students believe about the world*. What do they think is real? Why do they think it is real? Explore this with them, and it will help them (and you) to capture the essence of their orientation to life ... and to research. Once this happens, help students find the best research orientation for their own investigations (whether traditional/conventional, action research, phenomenological, or other).

This opens the door for trusting research. Having a foundational understanding of varied epistemologies may open Christian minds to more fully comprehend an atheist’s perspective, and this may improve communication between those of faith and those without. As a bonus, it seems to open students’ minds to the possibility that there are other ways of knowing, and this can add willingness in those who do not have faith to hear that God may actually exist outside of natural laws, and may have created them.

I am thankful to Ron Johnson for introducing me to the ASA. Moreover, I am grateful for the quality of *PSCF* and the opportunity to learn from other scholars of faith.

Lauren S. Seifert, Malone University, Canton, Ohio.

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1996

MEREDITH G. KLINE, “Space and Time in the Genesis Cosmogony,” *PSCF* 48, no. 1 (1996): 2-15.

It was the spring of 1996. I was transitioning from full-time research to undergraduate teaching. I was visiting the campus of the institution where I would be their first biology professor, starting up a new program. During my visit, I had some down time, so I went to their small library to see what they had. I noticed the spring issue of *PSCF*, so I picked it up, leafed through it, and found Meredith Kline’s article outlining his Framework interpretation of Genesis 1. At the time I had been struggling to reconcile my literal interpretation of Genesis 1 with the science that seemed to point to an old earth. What was so

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

impactful about this article was that it shattered my impression that a nonliteral interpretation simply dismisses what the Bible says in these early chapters of Genesis. Instead, I found a far deeper and richer explanation of the text than I had ever seen.

I ended up getting the position and one of the courses I developed dealt with evolution. This Kline article was one of the readings for the class. Over 25 years later, I am still teaching a course on origins and the Kline article is still on the reading list, along with several other *PSCF* articles. I have found *PSCF* to be a tremendous resource for Christians navigating their way through difficult topics in a way that attempts to do justice both to scripture and science, God's two ways of revealing himself in the world.

Tony Jelsma, Dordt University, Sioux Center, Iowa.

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1997

KEITH B. and RUTH DOUGLAS MILLER, "Taking the Road Less Traveled: Reflections on Entering Careers in Science," *PSCF* 49, no. 4 (1997): 212-14.

I learned about the American Scientific Affiliation in 1997, three years after graduating as a biologist from a state university in Peru. At that time, I worked as a science professor in a high school in Lima and volunteered at a nature conservation association. There were few opportunities for biologists, so I wasn't sure if I should either pursue graduate studies that would enhance my research abilities, or dedicate my life to children's education. After becoming an ASA member, I loved reading about evolution, astronomy, human origins, and other topics Christian scientists wrote about in the *PSCF* journal. One of the first articles I read was a short reflection in the young scientists' corner, "Taking the Road Less Traveled: Reflections on Entering Careers in Science," by Keith and Ruth Miller. Their road less traveled was pursuing careers in science as a Christian calling.

As a Christian, I always have had a passion for God and nature. But at that time, I struggled to see the connection between my faith and the academic world. The only connection available between my evangelical faith and science in the church was the teaching of the young earth creationists (YEC). As the Millers described in their article, I saw in my

local church how science was considered an apologetic tool to contradict evolution and not for proper stewardship of creation. I had much comfort in doing this stewardship of creation because that was a better connection between science and faith than YEC, and I had failed miserably trying to be a YEC apologist. It was good that ASA changed my mind!

As the Millers, I was part of the equivalent of the InterVarsity Christian Fellowship at the university where I earned my undergraduate degree in Peru. I also had a role model, a Christian professor who taught botany. I was able to do research with him. "How good and pleasant it is when God's people live together in unity!" (Psalm 133:1). That unity of mind means for me knowing that God is the creator and that he is not just in our religious life but in all aspects of our lives. I lived this experience at Bible study groups at the university and the first time I attended an ASA meeting in 1999. The Millers also mentioned that graduate school studies are more focused and serious. The eager pursuit of truth in a holistic sense that they described, motivated me to start graduate studies in 1998. Even though I was very busy as a graduate student, I found Christian community that honors the life of the mind. As the authors narrated, I also learned about the diversity of the body of Christ, considering different theological positions.

Almost at the end of their article, the Millers place three challenges for the evangelical church in the United States: (1) Let the youth be professionals and serve God with their talents, (2) Value divergent viewpoints that are tangential to the core Christian beliefs, and (3) Encourage reflection about faith and the current world situation. These challenges could be applied well to the church in Latin American countries and elsewhere. I welcome these challenges and hope our churches now accept them, too.

The final words of encouragement in the Millers' article were vital to make my decision to pursue graduate studies and get more into research. "In studying the processes of the natural world, you are watching the hand of God at work. By striving to understand the workings of creation, you are equipping yourself to fulfill the stewardship mandate given to us by God."

After 26 years, I am honored to be part of ASA, a scientific and Christian community that honors Jesus

and the study of his creation. I am still working in education at a university level and researching natural sciences. I thank God and the Millers for all their essay meant to me.

Oscar Gonzalez, Anderson University, Anderson, South Carolina.

DOI: <https://doi.org/10.56315/PSCF9-23Greuel>

2001

PETER RÜST (RUEST), "Creative Providence in Biology," *PSCF* 53, no. 3 (2001): 179–83.

Ever since I came to faith in Christ as a sophomore in high school, I have been convinced of God's loving care for me, his provision for my needs, and his guidance in my everyday life. At specific moments in my life, the timing of certain events, the awareness of key insights at the right time, or the provision of specific resources or opportunities just when they were needed were so extraordinary that I knew without a doubt that they were "God things" rather than just the products of my own wisdom and resourcefulness, the generosity of others, or blind luck. No violations of natural law characterized any of these cases—just an impeccable timing that convinced me these were the product of divine actions. There are many passages of scripture I could point to that are consistent with this conclusion (e.g., Prov. 3:5–6; Matt. 6:25–34; Matt. 7:7–11; Phil. 4:19).

I have long held the view that God, as Creator and Sustainer of all that exists, designed the universe so that physical structures (galaxies, stars, planets) formed and complex biological organisms (bacteria, amphibians, reptiles, humans, etc.) evolved by natural processes according to the very laws he created. But exactly how do we describe the mode of divine action in this evolutionary creation (i.e., theistic evolution) model for God's creation of living things? Were the physical properties of matter and the natural laws that God created enough to account for the emergence of life on this planet and its subsequent diversification and complexity? Or was God's ongoing activity required to guide the entire process? In 2001, Peter Rüst published a communication in *Perspectives on Science and Christian Faith* that addressed these questions. This paper resonated with me based on my training as a biologist and my observations of God's providence in my personal life and the lives of others.

Rüst proposed, on both theological and scientific grounds, that God's creative and providential activities have *not* ceased after his initial creation, but that they are continuous, and usually hidden. God's divine actions in creation, or "hidden options" as Rüst called them, may include "quantum uncertainties, randomness in elementary events, unpredictability due to minute parameter value deviations in nonlinear systems liable to produce deterministic chaos, and coincidences." According to Rüst, these "hidden options" do not represent violations of any natural laws, but they are "specific acts of *selection* among distributions of many different naturally possible values for stochastic variables." He cited, as a hypothetical example, the spontaneous occurrence of specific *combinations* of mutations required for the emergence of a certain enzyme activity that may be "transastronomically improbable" in the context of strictly *undirected*, random processes alone.

Rüst argued effectively in this paper that the proposed "hidden options" model did not represent "God-of-the-Gaps" type speculation that may be a shortcoming in other models for divine action in creation. He maintained, for example, that there are no gaps in "creation's economy," to use language similar to Howard Van Till, "as all materials and their properties were fully in place and well equipped to proceed anywhere in development ("Basil, Augustine, and the Doctrine of Creation's Functional Integrity," *Science and Christian Belief* 8 [April 1996]: 21–38)." It is more an issue of the limited time available for "random-walk trials." Sometimes specific direction by God is required to guide the process of evolution through the virtual infinitude of "possibility space."

The beauty of Rüst's "hidden options" proposal is that it is consistent with scriptural teaching on God's role as Creator and Sustainer of the universe and all living things while explaining *how* God may have used the evolutionary process as a means for creating the diversity of life on this planet. At the same time, it does not contradict the abundant evidence for evolution that has been obtained by scientific investigation. Moreover, it accords with our experience of God's providential work in our everyday lives and in history.

Brian Greuel, Emeritus John Brown University, Siloam Springs, Arkansas.

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

DOI: <https://doi.org/10.56315/PSCF9-23Clouser>

2003, 2010

CAROL A. HILL, "Making Sense of the Numbers of Genesis," *PSCF* 55, no. 4 (2003): 239–51; and DENNIS R. VENEMA, "Genesis and the Genome: Genomics Evidence for Human-Ape Common Ancestry and Ancestral Hominid Population Sizes," *PSCF* 62, no. 3 (2010): 166–78.

Carol Hill's article documents the extensive use of symbolic numbers ascribed to people in the ancient near east as though they were their chronological age, when in fact they were intended to be symbolic of their character and/or accomplishments. The documentation shows that this information was in the *Jewish Encyclopedia* for 1903! What a pity this has been kept a secret for over a century! Think of all the churchgoers who have puzzled over the ages ascribed to Adam or Noah, and how helped they would have been by this simple explanation.

I have also found especially helpful, Dennis Venema's "Genesis and the Genome." I am not a biologist, but I found his clear explanations of the findings of contemporary genetics in relation to human evolution, both enlightening and compelling.

Roy A. Clouser, Emeritus, The College of New Jersey,
Ewing, New Jersey.

DOI: <https://doi.org/10.56315/PSCF9-23Hollman>

2005, 1991, 2022

PERRY PHILLIPS, "The Thrice-Supported Big Bang," *PSCF* 57, no. 2 (2005): 82–96; FRED G. VAN DYKE, "Ecology and the Christian Mind," *PSCF* 43, no. 3 (1991): 174–84; and ALAN DICKIN, "The Design of Noah's Ark," *PSCF* 74, no. 2 (2022): 92–105.

The current scientific model of the beginning of the universe is clearly described in an article by Perry Phillips in the 2005 *PSCF* article "The Thrice-Supported Big Bang." Perry describes the history of the universe from 1×10^{-43} second onward, highlighting the three key elements supporting the hot Big Bang. The descriptions in this article are understandable to individuals with a good understanding of high school science. Knowing that the universe has a beginning in time neatly agrees with a God external to the universe. Perry concludes by debunking "alternative theories" of young earth creationists.

I have been able to use this article when sharing with my young earth friends including some pastors in my Southern Baptist Church.

Another article I have referred to colleagues is Fred Van Dyke's article documenting the important shift in attitudes in ecology. Secular scientists no longer regard Christians as the cause of the ecological crisis but realize the important contributions of ecology science in Christian Colleges. A secular ecologist who believes in an accidental and random creation of life on Earth does not have a philosophical teleology to argue that humans should sacrifice for the environment. A proper understanding of the biblical concept of stewardship gives a logical philosophical reason as to why we should care for creation.

I recently shared a *PSCF* article by Alan Dickin on the design of Noah's ark with a friend who is on the board of trustees of the Ark Experience in Kentucky. There was no conversion, but hopefully better understanding of the diversity of perspectives within the Christian community. *PSCF* allows us to share insights on what it means to take biblical revelation and science seriously.

Jay Hollman, Baton Rouge, Louisiana.

DOI: <https://doi.org/10.56315/PSCF9-23Sikkema>

2007, 2008

RANDY ISAAC, "Assessing the RATE Project," *PSCF* 59, no. 2 (2007): 143–46; THE RATE GROUP (LARRY VARDIMAN et al.), "RATE Responds to the Isaac Essay Review," *PSCF* 60, no. 1 (2008): 35–36; RANDY ISAAC, "Isaac Replies," *PSCF* 60, no. 1 (2008): 36–38; KIRK BERTSCHE, "Intrinsic Radiocarbon?," *PSCF* 60, no. 1 (2008): 38–39; and ROBERT ROGLAND, "Residual Radiocarbon in an Old-Earth Scenario," *PSCF* 59, no. 3 (2007): 226–28.

I grew up in a religious context, including school, church, and home, where young-earth creationism was standard fare. When I went off to study science at university, it was implicitly, and in some cases explicitly, indicated to me that my mission was to expose the scientific establishment for its anti-God and anti-Bible views, and to identify its scientific errors. After all, when done correctly, science would no doubt confirm the truth of the Bible, meaning the universe, earth, life, and humanity were created around 4000 BC.

I encountered significant challenges while an undergraduate student research assistant of cosmologist Werner Israel, finding the evidence for an ancient cosmos overwhelming enough for me to switch into the safer, less faith-impacting (or so I thought), field of theoretical condensed matter physics for my doctorate. I marked that transition with a silly little claim that “cosmology can rightly deal only with the present and future.”

Over the next ten years, while completing my graduate studies, a postdoctoral position, and the early years of a faculty position, I read relevant theological and philosophical literature, including from within my Reformed tradition, and also engaged informally with some in the young-earth creationist community who were attempting to resolve cosmological questions. As a result, I became less convinced that the Bible clearly taught on the age of earth and cosmos, more convinced of the integrity of the fields of cosmology, astrophysics, and geology, and increasingly concerned about the claims of “scientific creationists.”

The RATE project (“Radioisotopes and the Age of the Earth”) of the Institute for Creation Research and the Creation Research Society caught my interest, and I was even involved in a bit of the early peer-review process. It was not hard for me to tell that much of what was being claimed was not particularly scientific, and based on the kind of science-related interpretation of scripture of my youth. But I didn’t study the entire project in detail. I was therefore grateful for a helpful and thorough essay review by Randy Isaac in the June 2007 issue of *PSCF*, as well as his reply to the RATE Group’s response in the March 2008 issue, coupled with a reply by Kirk Bertsche in that same issue to a related article.

While I had been a member since 1996, this all helped me understand and appreciate more than before the nature, ethos, and value of ASA, with expert scientists who are committed Christians helping one another through respectful dialogue. These exchanges, along with many other important articles in *PSCF*, have been invaluable as resources to provide to students as well, to connect them with our network as they develop as scientists and as Christians.

Arnold E. Sikkema, Trinity Western University, Langley, British Columbia, Canada.

DOI: <https://doi.org/10.56315/PSCF9-23Bishop>

2008

TIMOTHY LARSEN, “War Is Over, If You Want It’: Beyond the Conflict between Faith and Science,” *PSCF* 60, no. 3 (2008): 147–55.

Over the years there have been many thoughtful, engaging, and insightful articles published in *Perspectives on Science and Christian Faith*. It is difficult to choose what has been the most impactful piece for me, but one that ranks up at the top of my list is Timothy Larsen’s “War Is Over, If You Want It’: Beyond the Conflict between Faith and Science.”

Not only has Larsen’s article helped me to articulate more clearly how the metaphor of warfare or conflict between the sciences and faith is a myth, but I have also found it helpful with students. Assigning it as reading for a class and then sitting down with students to discuss Larsen’s arguments and evidence has been very fruitful. Getting students to compare this article with the typical things they have heard in churches, schools, the media, and so forth, has proven to be very clarifying for them.

I would recommend Larsen’s article as a go-to piece to put in anyone’s hands who seems to think that Christianity has been at perennial war with the sciences. The article clarifies well how there may be some people who pursue conflicts between the sciences and faith—perhaps for atheistic or religious reasons—but there is no necessary conflict between scientific inquiry and good theology. This is an article I return to time and again.

Robert C. Bishop, Wheaton College, Wheaton, Illinois.

DOI: <https://doi.org/10.56315/PSCF9-23Bebej>

2011

KEITH MILLER, “And God Saw That It Was Good’: Death and Pain in the Created Order,” *PSCF* 63, no. 2 (2011): 85–94.

Perspectives on Science and Christian Faith has been absolutely instrumental in my own development as a Christian paleontologist. I grew up in a community in which it was simply assumed that Christian faith was incompatible with the notions of an ancient universe and an evolutionary history for life on Earth.

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

However, the more I studied biology and geology in college, the more I became convinced that living things had a long, complex history on this planet. As I explored these scientific ideas, my professors at Calvin College (now Calvin University) also helped me to see that this did not necessitate a loss of faith—that I could continue to be a strong, committed Christian, even as I studied evolution.

But as I began to intentionally integrate my faith and scientific studies, I began to encounter difficult biblical and theological questions that I was not quite sure how to deal with. My professors were immensely helpful as I thought about these issues, and one of them steered me toward *Perspectives on Science and Christian Faith*. I found the section in the library where back issues of the journal were shelved, and I spent countless hours poring through articles related to evolution and Christianity. These articles helped me to see that I was not alone in having these hard questions—that, in fact, many Christians were thinking through some of the same things that I was, which was an immense encouragement to me as I graduated from Calvin and went on to do a PhD at the University of Michigan.

During my first year as a graduate student in paleontology, I joined the American Scientific Affiliation as a student member and attended my first ASA meeting. I looked forward to each issue of *PSCF* that arrived in my mailbox, and I can honestly say that the ASA and *PSCF* were helping my faith to continue growing alongside my development as a scientist. But that did not mean all of my questions went away. In fact, some of them even became more acute, particularly questions related to the predation, death, and extinction that were so evident in the fossil record. How could those things be part of a God-ordained and God-sustained process? These questions nagged at me as I completed my dissertation and prepared for my first faculty position, but I simply had not had the time or space to devote as much careful thought to these questions as they deserved.

It is in this context that I remember receiving the June 2011 issue of *PSCF*. I had just defended my dissertation, my wife was pregnant with our oldest son, and we were preparing to move to Illinois. Despite all the busyness, I couldn't help but flip through *PSCF* when it arrived. There I found an article from Keith Miller called "'And God Saw That It Was Good': Death and

Pain in the Created Order." Keith's earlier work had been very helpful to me in my undergraduate years as I wrestled with the compatibility of evolution and Christianity, and I remember having a brief (but very encouraging) conversation with him at the first ASA meeting I attended. I knew that he had spent a lot of time wrestling with many of the same questions that I had, and in this piece, I encountered such thoughtful engagement with several immensely difficult questions related to the goodness of creation, the effects of sin, and the roles of pain and death in God's creation.

Over the years, I have thought about these questions fairly often, and I even had the chance to explore these issues more deeply through a program sponsored by Scholarship and Christianity in Oxford back in 2018–2019. I have lost count of how many times I have returned to Keith's article to refresh my memory on some of its most salient points, but even as I read it today, with some questions answered to my satisfaction and some that may never have explanations on this side of eternity, I see this piece as a resplendent example of what Christian scholarship can be: careful, thoughtful, and humble, yet courageous in engaging with some of the most difficult questions that Christians can ask.

In its 75 years of publication, *PSCF* has published so many examples of this kind of scholarship; I look forward to what will come in the next 75 years. I imagine that I will continue to find articles from issue to issue that clarify things for me, stretch me, and invite me to consider various topics in new ways. But I also know that there are all kinds of questions that we haven't even thought about yet, and I cannot wait to see what the next generation of Christian scholars has to teach us through the pages of *PSCF*.

Ryan Bebej, Calvin University, Grand Rapids, Michigan.

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2011

ARIE LEEGWATER, "A Brief Excursion in Chemistry: 'God-Talk' in Chemistry?," *PSCF* 63, no. 3 (2011): 145–46.

The challenge that I found most perplexing, when I began my career as a chemistry faculty member at a Christian college, was that of how to "integrate"

my Christian faith into my teaching. The issue wasn't so much that there wasn't a connection between Christianity and chemistry. Rather, it was that the resources I found assumed that chemistry was either unimportant or only useful as a resource for apologetics. This contrasted sharply with my own perception of chemistry as a rich source of insight into how the world works; a resource that contributes to human welfare in ways that reflect Jesus's teachings about what humans are called to do. Chemists produce medicines, polymers, and biochemical knowledge to heal the sick; fertilizers and other agricultural chemicals to feed the hungry; solar energy and green chemistry technologies to care for the environment; and a myriad of synthetic and semisynthetic materials that are used to clothe, house, and feed the needy. Further, chemists sometimes have to navigate problems such as pollution, toxicity, climate change, and disease in the course of their work, which call for wise Christian discernment.

Arie Leegwater's September 2011 editorial, "A Brief Excursion in Chemistry: 'God-Talk' in Chemistry?," helped enlarge my understanding of science and faith to include more of what chemists do. Building on the work of Hans-Jörg Rheinberger and twentieth-century historians of science, and elucidating factors which shaped science's development, Leegwater suggested that scientists' religious beliefs and commitments (which all scientists possess, whether theistic or not) are evident in what scientists do. In other words, a perspective on science does not just involve questions of ethics and the compatibility of propositional truths, it also takes place through the "problems [scientists choose], how they are formulated, the experimental evidence marshaled, and [how theories are perceived]."

Although Leegwater did not say so directly, his examples suggest that chemists' "God-talk" also includes their scientific efforts to benefit humanity, navigate tradeoffs associated with chemical hazards, and shape the character of their communities. Each of the chemists he discussed was both a scientific pioneer and an activist who sought to align human society with his vision of the good. The physicalist Wilhelm Ostwald led the German Monist League and promoted the renunciation of church membership; the secular humanist Linus Pauling became an antinuclear peace activist; the devoutly Methodist Charles Coulson conscientiously objected to war

research, served as a lay minister, cultivated scientific talent in the developing world, and served as president of the poverty-relief charity Oxfam.

Subsequently, I discovered that Leegwater's point was somewhat foreshadowed by Willem Drees's earlier suggestion that science and religion relate along more dimensions than the propositional, cognitive, and ethical (*Religion, Science, and Naturalism* [Cambridge, UK: Cambridge University Press, 1996]). It was also echoed and amplified by Peter Harrison's 2011 Gifford Lectures, in which Harrison demonstrates objective and propositional understandings of "religion" to be a product of the Enlightenment that distorts. To help ensure that our perspectives represent science and Christian faith well, we might take Leegwater's editorial to heart.

Stephen Contakes, Westmont College, Santa Barbara, California.

DOI: <https://doi.org/10.56315/PSCF9-23Schuurman>

2012, 2019, 2020, 2013

Theme issues: Responsible Technology, PSCF 64, no. 1 (2012); Artificial Intelligence, PSCF 71, no. 2 (2019); Transhumanism PSCF 72, no. 2 (2020); and JAMES K. A. SMITH, "Science and Religion Take Practice: Engaging Science as Culture," PSCF 65, no. 1 (2013): 3-9.

I recall when I first encountered *Perspectives on Science and Christian Faith* as a young professor. I had observed that integrating faith and technology was not trivial, and that it was sometimes done in a shallow and unconvincing manner. But *PSCF* provided evidence that Christian scholarship in science and technology could be done in a deep and thoughtful way.

Some *PSCF* articles that stand out to me are the ones found in special issues dealing with technology, specifically the issues on Responsible Technology (March 2012), Artificial Intelligence (June 2019), and Transhumanism (June 2020). An example of one such article is by David Winyard titled "Transhumanism: Christian Destiny or Distraction?" I found this article an important corrective to recent voices that seek to place transhumanism within a Christian context. I am grateful that the mission of ASA and *PSCF* includes engaging topics in computer science,

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

engineering, and technology for those of us working in those disciplines.

Another article that stands out to me is one by my colleague, philosopher Jamie Smith, who wrote an article titled “Science and Religion Take Practice: Engaging Science as Culture” (*PSCF* 65, no. 1 [2013]: 3-9). In this paper, Smith makes the crucial point that science is a human cultural activity with important implications for the dialogue between faith and science.

I do not always agree with the articles I read in *PSCF*. Even so, I appreciate how the very title of the journal captures a form of intellectual humility. It is not *The Perspective on Science and Christian Faith*, but rather *Perspectives* (plural) on Science and Christian Faith. The journal exhibits “faith seeking understanding” and provides a forum for Christian scholars to humbly interact and sharpen each other, as iron sharpens iron (Prov. 27:17).

May *PSCF* continue to serve the ongoing dialogue about faith and science—as well as technology, modelling both intellectual rigor and humility, for many more years to come.

Derek C. Schuurman, Calvin University, Grand Rapids, Michigan.

DOI: <https://doi.org/10.56315/PSCF9-23Smith>

2013

HEATHER LOOY, “Psychology at the Theological Frontiers,” *PSCF* 65, no. 3 (2013): 147-55.

With increasing frequency, my conversations with colleagues turn to recent studies illuminating the magnitude of the mental health crises facing Americans, especially students. Although my stripes as a psychologist are as a researcher, not a mental health care professional, I engage these conversations within the broader academic discipline of psychology, a field within which promised solutions to these mental health problems lie. Admonitions to improve mental health with self-care or mindfulness abound; moving beyond pop psychology deepens and nuances these admonitions in ways that highlight well-researched pathways toward (and away from) mental wellness. Yet, the question remains: with all

we know about mental health, why can we not seem to do anything to improve it for more people in more places?

Although the cultural and educational landscapes seem different than in 2013 when Heather Looy published “Psychology at the Theological Frontiers,” I find myself bemusing the reality that her argument is fundamental to this question. She critiques psychology’s penchant for *bad reductionism*, an assumption that the answer to a specific empirical question is a complete articulation of all that is important. She underscores the position that knowledge, like the people who generate it, is situated and embedded within contexts and cultures that shape the production, interpretation, and meaning of that knowledge. She asks how we can engage biological mechanisms without reducing individuals to their biology—or even to an overly atomistic view of persons, separated from relationships with others and the world. Importantly, Looy reminds us that serious engagement with these critiques, positions, and questions does not threaten potential contributions of psychological science, but instead invites distinctly Christian reflections in and on psychology.

I thought of this need for Christian reflection throughout psychological science in a recent conversation about student mental health with a colleague who wondered, as Looy did, how we can use our psychological and theological knowledge to find “ways to live well and faithfully in our current context” (p. 154). Psychology has tools to offer individuals and communities who are suffering. But do those tools trace the boundaries within which human flourishing occurs? Said another way, if Christianity is true, then there are particular ways of being and living in the world that align with our creatureliness, and there are ways of being and living in the world that do not. I assume that flourishing is not possible when living outside the boundaries of our creatureliness, that these boundaries trace the range of possibilities for mental wellness and flourishing, and in doing so, also articulate the limits.

As *Perspectives on Science and Christian Faith* celebrates its 75th year, I reflect on the value of its contribution. *PSCF* empowers and equips Christian thinkers to collaboratively articulate the boundaries of flourishing, boundaries that benefit from empirical, psychological, and theological excavation.

Looking back on Looy's 2013 contribution, I see an example of how we, as Christians, can use all the tools in our epistemological toolbelt to leverage the contributions of science and theology humbly and confidently for the benefit of our neighbor and our world.

Erin I. Smith, *California Baptist University, Riverside, California.*

DOI: <https://doi.org/10.56315/PSCF9-23Kaita>

2014

OWEN GINGERICH, "Do the Heavens Declare the Glory of God?," *PSCF* 66, no. 2 (2014): 113–17.

A scientist once mentioned to me that he didn't want to tell his young son that God created the universe. If he did so, the scientist explained, it would take away the awe and wonder he wanted his child to feel. I was taken aback when I heard this. I have given many talks where I showed beautiful images from space, motivated in part by my role – albeit modest – on the Voyager spacecraft sent to the far reaches of the solar system. I always assumed that they are a wonderful illustration of God's creation, never considering the possibility that anyone could come to the diametrically opposite conclusion.

My experience made me think more carefully about what the psalmist meant when he wrote, "The heavens declare the glory of God." Owen Gingerich frames the passage in the form of a question in the title of his *Perspectives on Science and Christian Faith* essay, and I immediately sensed that Gingerich appreciated my challenge by its very first lines. "[A] congregation would be shocked if [Gingerich] simply said 'yes' and sat down. On the other hand, [they] would all be even more stunned if [he] said, 'No, the heavens do not declare the glory of God,' and sat down. So, [he thinks] you can safely deduce that there is something more to be said about the psalmist's ancient declaration."

Gingerich begins by reminding us that our predecessors did not see the universe as we do. From reckonings made in the sixteenth century, the sun was estimated to be much closer than it actually is. The "shell of stars" just beyond that encloses our solar system is impressive, but God, to quote Gingerich, was "not so far away." We now know

that our universe stretches to a horizon nearly 14 billion light years away. Such a vast distance would have been inconceivable to the psalmist. Perhaps only modern science then, and not the faith of the ancients, can let us appreciate how truly awesome our universe is.

Not so fast, Gingerich warns us. Modern science also tells us what we need for our existence. For example, carbon and oxygen are the building blocks of life as we know it. The so-called energy levels in the carbon nucleus, however, are just right for oxygen to be formed in stars and end up on Earth. Similarly, physical constants also have been constrained within very tight limits for life to exist in our universe. To a physicist like me, such details are as awe-inspiring as the starry skies in displaying what God has done.

Fred Hoyle, the famous cosmologist and "public skeptic" as Gingerich calls him, writes, "There are very many skeptics of the universe where you either have to say there have been monstrous coincidences, where there might have been, or, alternatively, there is a purposive scenario which the universe confirms" (*The Origin of the Universe and the Origin of Religion* [Wakefield, RI: Moyer Bell, 1993], 83). Unlike Hoyle, Gingerich asserts that he isn't "sitting on the fence" when it comes to purpose behind the universe. He concludes by simply saying that "the sheer beauty of the heavens declares the glory of God!" I still lecture on how the majesty of God's universe reflects this, but thanks to Gingerich's essay, with a richer and more humble understanding of why.

Robert Kaita, *Princeton University, Princeton, New Jersey.*

DOI: <https://doi.org/10.56315/PSCF9-23vanderMeer>

2018

ALAN DICKIN, "New Historical and Geological Constraints on the Date of Noah's Flood," *PSCF* 70, no. 3 (2018): 176–93.

Alan Dickin's article about Noah's flood filled in the last opening of a puzzle for me. I have viewed this flood as a local one for a long time. But there was a problem. If it was local, why are flood stories found globally? Alan explained this convincingly. Briefly, there was a flooding of the Euphrates River brought about by a combination of a rising sea level

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

in the southeast and excessive rain in the northwest (southeast Turkey), the location of the head waters of the Euphrates River. The rising sea level was due to snow melt after the last glacial period. It backed up into the Euphrates from the southeast. Excessive rain fall produced massive flow from the northwest down river. The flood occurred where the two effects met.

The point is that this is a common phenomenon around the world. That explained why flood stories are found globally.

*Jitse M. van der Meer, Redeemer University College,
Ancaster, Ontario, Canada.*

DOI: <https://doi.org/10.56315/PSCF9-23Jordan>

2018, 2021

WALTER BRADLEY, "The Fine Tuning of the Universe: Evidence for the Existence of God?," PSCF 70, no. 3 (2018): 147–60; and TERRY GRAY, "Pronuclear Environmentalists: An Introduction to Ecomodernism," PSCF 73, no. 4 (2021): 195–201.

I have been around the ASA for more than 40 years. I have found the journal to be a very important part of my spiritual and academic walk. The journal has helped me to refine my thinking: sometimes changing it and sometimes reinforcing it.

Two examples illustrate this. The first one is Walter Bradley's article in September 2018, entitled "The Fine Tuning of the Universe: Evidence for the Existence of God?" I largely came to Christian faith through apologetics. This article reminded me again of why I became a Christian. It was encouraging to read of newer developments in this area that was so important to my coming to faith.

Among more recent articles, the one by Terry Gray in December 2021 is particularly important. I have taught engineering ethics for more than thirty years. During the last ten years of my academic career, I have become very interested in sustainable engineering. This article deals with both topics. It is an interesting discussion of how some people who are concerned about the environment have come around to the conclusion that nuclear power may be acceptable after all. It is clear from this discussion that Gray (and myself) tend to be technological optimists, believing that many of our environmental problems

can be helped through the appropriate use of technology. I heartily agree with his conclusion:

When scientists, engineers and technologists use their minds, and the resources found in creation, to accomplish good, it is to the glory of God and to the furthering of his kingdom. Ecomodernists point to a great Anthropocene as the eschatological goal. Christians point to a different eschatological goal brought about by the Second Coming of Christ. Nonetheless, there is overlap between the two, and Christians can partner with ecomodernists to do the work God is calling us to do. (p. 199)

William Jordan, Baylor University, Waco, Texas.

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2021

ROY CLOUSER, "Three Theological Arguments in Support of Carol Hill's Reading of the Historicity of Genesis and Original Sin," PSCF 73, no. 3 (2021): 145–51.

I want to highlight Roy Clouser's paper as providing key insights toward solving a major impasse between earth and heaven, science and faith—the nature of Eden.

As Christians who are scientists, we tend to think of the major story of reality as creation—God's providential control of the evolutionary process, the eons-long struggle between competing individuals and cooperative groups, culminating in human societies. Creation within an entropic universe builds complexity through the negentropic collection of energy, even though guided by God's providence. Human intelligence develops "in the flesh," rational and social, "completed" through multiple inflection points in the hominin line as competition (contest) is displaced by cooperation (love).

But as Christians who are theologians, we tend to think of the major story of reality as redemption—through Jesus, God reclaiming and reconciling fallen sinners, societies, and all of creation, ending in the new Jerusalem, in the new heavens, and new earth. As Paul sees it, creation is bound up in resurrection. All creation is from and for the *Telos*, the New Jerusalem. In eternity's endless moment, planning and action are simultaneous, and thus creation unfolds backwards through time, from the future

Telos. The plot of the story is “resurrection,” the transformation from the “fleshly” earth to the “spiritual” earth. N. T. Wright points out that this process has already begun (e.g., *Surprised by Hope* [2008]). It was revealed in Jesus’s resurrection, and continues via the work of the Holy Spirit within God’s people.

The two stories have a foundational difference—one tells the story of the forming of the earth, the other, the story of the transforming of the earth to receive heaven. The essence of the second story is resurrection—and that cannot happen through the “natural” forces that science studies. How do the two stories fit together? I think Eden is a key. But understanding Eden and evolution is a problem. If the fall of humanity is considered the explanation for evil—human sin, animal / human death and natural disasters—the long history of evolution does *not* look like paradise, but rather, business as usual.

The debate over the meaning of Eden is certainly hot. Is an event in “real” history necessary? Or is Eden a “mythic” story representing the plight of *Ha’adam*—of all humanity? Must we go back close to a million years to find a common ancestor, or did Eden happen a few thousand years ago? Do we need a common genetic ancestor, or will a common genealogical ancestor do? Is a Fall in Eden necessary to explain human sin, natural disasters, and the need for salvation? Or could the event have another meaning?

The following insights from Clouser seem particularly important in this debate. First, the word “*neshamah*,” God’s breath into Adam, means the Holy Spirit infilling the mortal flesh—it is God’s Spirit. It is the word used for filling Old Testament prophets and New Testament believers, and thus for filling an already living, but mortal, Adam as well. It is the same Spirit breathed into the disciples by the resurrected Christ.

Second, the apostle Paul says that sin was not imputed before the law, but sin *was* imputed to Adam, to the people in the flood, to those of Sodom and Egypt. All those judgments for sin happen before the Torah which was given on Mount Sinai. Thus, the first “law” was given to Adam, and therefore unimputed sin must have existed before Adam.

Third, Augustine misinterpreted Paul—and Genesis. The first misunderstanding was due to a bad translation of Romans 5:12 from the Greek (yielding

inherited “original sin”), and the second, to his Platonic understanding of the “good” as ultimate perfection, rather than the Hebraic understanding of “*TOV*” as completeness. Hence, Adam was offered redemption, and thus potentially had eternal life. That is what Adam lost in the “Fall.” He became mortal again.

Within this view, Eden becomes the hinge in creation, the first injection of heaven into earth, the physical creation seeded with the life of heaven. Eden was a potential inflection point between creation and consummation. Through creation, *Ha’adam* had become *TOV*, complete, ready to be filled by the Holy Spirit, equipped to be commissioned as God’s agent / image to spread heaven’s life across the earth.

Of course, God was not taken by surprise by Adam’s choice to build the city of man rather than the city of God. Human civilization subsided into the morass of Babylon, enslaved by the earthly authority Adam had ceded to the *Ha’satan*. But God continued divine contact, made covenant, filled the temple with *shekinah* glory, and brought redemption through Jesus the Messiah, the cross, and resurrection. The eternal plan was put back on track—the beautiful but aching old creation could hope to be fulfilled / reborn as the glorious new creation. And we, along with it.

David L. Wilcox, Eastern University, Philadelphia, Pennsylvania.

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2022

FRED CANNON, “Acts 17:26: God Made of One [Blood]—Not of One Man—Every Ethnic Group of Humans,” *PSCF* 74, no. 1 (2022): 19–38; and WILLIAM HORST, “From One Person? Exegetical Alternatives to a Monogenetic Reading of Acts 17:26,” *PSCF* 74, no. 2 (2022): 77–91.

Acts 17:26 is often claimed as a key proof text in the New Testament that a person named Adam was the first anatomical human being. In this study, Fred Cannon shows exhaustively that the words “Adam” or “Man” are not even in the original Greek text of Acts 17:26, despite translations such as the NIV, NEB, and ESV that add “Adam” or “Man” to their English versions of the text. KJV, NKJV, RSV ... are all more accurate translations on this point. “One flesh,” “one

Article

Twenty-Five ASA Fellows and Editors Tell of PSCF Articles That Changed Their Lives

blood,” and “one” are found in the ancient copies of Acts 17:26, but not “Adam” or “Man.”

In the following issue of *PSCF*, William Horst pursues the next step of asking whether as often claimed, “Adam” does not appear in the actual text, but is implied. With utter fairness and clear exposition, he shows that there are multiple justified interpretations of the Greek text of Acts 17:26 that do not imply “Adam.” Whatever the New Testament evidence might be for understanding the history and role of Adam, Acts 17:26 should not be misrepresented as a proof text about Adam. Making that clear, is a substantial contribution to listening carefully to what the New Testament does indeed actually teach.

James C. Peterson, Roanoke College, Virginia Tech, Virginia.

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2022

TONY JELSMA, “An Attempt to Understand the Biology of Gender and Gender Dysphoria: A Christian Approach,” *PSCF* 74, no. 3 (2022): 130–48.

Gender dysphoria is a highly controversial topic in society, and particularly vehement viewpoints have been taken and expressed across the Christian spectrum. I applaud Tony Jelsma and the ASA for sharing a very well-researched and presented article on this topic.

It is personally of interest to me in having a grandchild with whom I am very close, who struggles mightily with gender issues. The article helped me understand some of the broader issues and considerations.

Lynn Billman, Lakewood, Colorado.

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The details section includes two images: a lush tropical waterfall surrounded by dense green foliage, and a black sand beach with waves crashing against the shore.