

When Faith and Knowledge Clash:

Leveraging the Tension to Advance Christian Education

BY H. THOMAS GOODWIN

Humans have remarkable capacities to gain knowledge, develop understanding, and apply new knowledge to address long-standing questions or problems. Use of these God-given capacities is exponentially increasing human knowledge of the universe—from the grand scale of astronomy to the intricacies of the human genome and even subatomic physics—and the information is also being used to develop more and more powerful technologies.

Increasing knowledge often supports Christian faith and witness. Consider

the Adventist emphasis on healthful living as part of God's intent for humankind, and how our improved knowledge of physiology, nutrition, and related fields affirms this emphasis.¹

However, as every Adventist scholar knows, increased knowledge may also generate tension with Christian faith. Many Christians, for example, feel keenly the tension between biblical creation narratives and modern scientific theories about Earth history.

How should we, as Adventist educators, relate to such dissonance between

Christian belief and secular knowledge? Because cognitive dissonance often creates intense discomfort, we often are tempted to solve it prematurely, either by rejecting the contrary knowledge or by over-simplifying the issues so that our preferred view “wins.” Neither of these solutions works in the end, especially for thoughtful, inquisitive students. At appropriate grade levels (certainly in college, and probably earlier), we must help our students work through challenging topics in an honest, straightforward way—even when our traditional beliefs offer no clear solution to the problem at hand.

Directly and honestly engaging such topics carries unavoidable risks, yet offers powerful educational opportunities. The primary risk is that some students

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will reject their Christian convictions when faced with unresolved tension between core beliefs and well-attested secular knowledge. This risk can be minimized by how we teach and live as teachers,² but it cannot be avoided. The opportunities accrue because cognitive dissonance provides both occasion and motivation for learning and growth.

In the remainder of this article, I will explore four such opportunities based on my experience in teaching a college biology class, *Historical and Philosophical Biology*, which focuses on the interface between the sciences of biology and geology and Adventist faith. The course explores philosophical, biblical, theological, and scientific dimensions of this interface and seeks to create learning opportunities from the tensions that emerge. While my illustrations arise from the science-faith arena, the principles can be applied across all disciplines.

Opportunity 1: Foster Careful Thinking

A primary goal of Christian education must be to help students develop careful habits of independent thought. As Ellen White noted, Christian education



seeks “to train the youth to be thinkers, and not mere reflectors of other men’s thought.”³ Becoming a careful thinker, however, does not just happen; students must repeatedly *practice* good thinking skills and see them *modeled* by Christian teachers. This process comes alive when students and teacher together engage challenging topics.

What intellectual skills must students master in order to address areas of conflict? Two stand out. Students must learn



The author, Tom Goodwin, teaching his Historical and Philosophical Biology class at Andrews University.

to (1) clarify and fairly describe the range of conflicting ideas, taking care to avoid simplistic and false dichotomies; and (2) develop and carefully evaluate ideas that aim to resolve conflict, using reliable evidence and methods of interpretation.

Students developing these skills are often helped by the teacher’s provision of a framework to guide their thinking. I find that a simple, three-element model works especially well. Following Christian philosopher Del Ratzsch, I encourage students to approach each idea as an interacting system of data, theories, and shaping principles.⁴ Data represent the observations, measurements, and experiences that the thinker seeks to organize;

theories are mental constructs or ideas formed in order to make sense of the data; and shaping principles correspond to the cognitive, cultural, biblical, and other factors that shape how and what one thinks. This relatively simple concept provides focus to the difficult intellectual work of understanding and evaluating conflicting ideas, locating the source of conflict, and identifying possible pathways to resolution.

Let’s take an example. To truly engage the controversy over creation and evolution, students should first *understand* the various positions taken by thoughtful Christians—the major theories of creation (e.g., young-earth creation, progressive creation, theistic evolution), how each engages biblical and scientific data, and the different presuppositions about science and Bible study that underlie each model. Students can then be expected (and coached) to *evaluate* the competing ideas, asking how well each accounts for relevant biblical and scientific data, how well each theory fits together internally, and how valid are the principles that underlie each.

For several years, I have encouraged students to personalize this process by requiring a major essay due near the end of the term. Students are expected to clearly state their position and to offer reasoned justification for it, in light of competing theories of creation, a wide range of biblical and scientific evidence, and shaping principles that they believe to be important. They must show that they understand both the strengths and limitations of their model in relation to other theories of creation.

What happens to student faith and learning as they do this? Most begin, and (thankfully) end, the course affirming the biblical teaching of creation, but they typically move from a dogmatic and often uninformed certainty to a more settled personal understanding that is aware of their position’s strengths and limits. Over the years, numerous students have reflected on this experience as one of their college highlights—they genuinely appreciate being challenged to think carefully and to personally “own” their

beliefs. Most importantly, they have developed habits of thought that will serve them well throughout their lives.

Opportunity 2: Illustrate and Motivate Creative Discovery

Maverick physicist Thomas Gold made his reputation by delving into fields as diverse as auditory physiology, astrophysics, and petroleum geology and generating novel hypotheses to account for unexplained phenomena. He once wrote, “There is nothing more interesting or more important in science than the observations we cannot explain.”⁵ Why? Such features serve as pointers to knowledge waiting to be discovered.

Gold’s words provide a valuable insight for Christian educators. Rather than avoiding or dismissing problematic topics, why don’t we treat them as opportunities for fundamental discovery? Perhaps this would liven dull lectures! Fortunately, the history of Adventist engagement with geology and paleontology offers a number of examples of such conflict-generated discovery, which I incorporate in my teaching.

The best-known example is probably Harold Coffin’s work with the stacked fossil “forests” in Yellowstone National Park. In the 1960s, these deposits were viewed as a major problem for Adventist creationists because it seemed that significant time was needed for them to form (each forest would have had to form, grow to maturity, and be buried by volcanic debris, a process that would be repeated many times if the forests were real). This tension stimulated many years of research by Harold Coffin, his students, and associates, and produced an emerging body of evidence suggesting that at least some of these “forests” may have actually been transported logs and stumps, thus reducing the time needed to create the deposit.⁶ While this problem probably has not been fully solved, the example illustrates how a problem or conflict can generate creative and successful research and discovery.

Another good example involves Leonard Brand’s research on the Coconino Sandstone of Arizona. Based on geological evidence, scientists believed that this had been deposited in a giant, ancient desert as sand dunes migrated

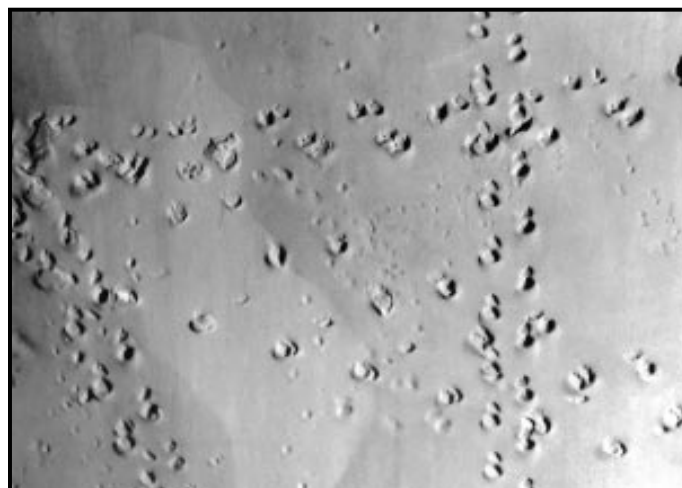
across the landscape. However, Brand found this interpretation puzzling because the Coconino occurs in a portion of the rock sequence that he attributed to the Flood, so he decided to study the problem. After years of research, he assembled a set of evidence, focused on strange animal trackways, that strongly supports an underwater origin for these sand deposits. For example, some trackways start and stop abruptly, and others display a mismatch between the way the animal is *attempting* to walk (uphill, based on the orientation of the toe marks) and the way it is *actually* moving (sideways, based on the placement of the tracks). Both of these suggest an animal buoyant in water, and the latter suggests a gentle sideways current.⁷

These examples not only illustrate the power of conflict-generated discovery, but also demonstrate the appropriate role of tenacity in the process of discovery. Scientists do not (and probably should not) abandon core ideas at the first hint of conflict but often hold tightly to these ideas as they wrestle with contrary data.⁸ Teachers should thus help struggling students understand that they can explore difficult topics without abandoning core Christian beliefs at first hint of conflict.

Opportunity 3: Affirm Different Thought Styles in the Search for Truth

As the preceding discussion implies, scientists often display conservative tendencies. Paleontologist David Raup described this well when he wrote, “Given a choice, the scientific community invariably sticks with the conventional wisdom.”⁹ This tendency plays an important role in science because it helps preserve what has already been learned and protects the scientific community from intellectual anarchy. However, the tendency can also slow scientific advance because new ideas will usually be viewed with suspicion.

How, then, does science break out from conventional wis-



Photograph of trackways studied by Leonard Brand. Trackway going side to side across the top of the picture represents animals seeking to move forward (up on the picture, indicated by direction of toe marks) but actually moving to the side, strongly implying that the animal was buoyant in water.

dom and accept new ideas, as so often has happened in its history? Raup again provides a clue: Science is saved from perpetual stagnancy by “the presence of mavericks in every generation—people who keep challenging convention and thinking up new ideas.”¹⁰ The undeniable long-term success of science has thus required a community with both types of thinkers.

This dynamic has important implications for Christian education because the church is also a truth-seeking community that needs, I believe, the gifts of both thoughtful conservatives and faithful mavericks. As we work through areas of tension between faith and knowledge, we thus have the opportunity, and the obligation, to affirm and challenge both groups in our classrooms. We will affirm the religious conservatives—the majority of Adventist college students in my experience—who will ably defend what the church has acquired through long-term Bible study, yet challenge them to honestly engage all evidence, including that which doesn’t fit. We need to likewise affirm the mavericks—usually fewer in number but often articulate—who feel the weight of the challenges and are willing to consider novel solutions, while challenging them to think carefully about the broader implications of their ideas. Both groups include bright, capable young people who desire to follow Christ and serve the church; let’s teach in ways that preserve both for God’s work!

With this goal in mind, I’ve developed a practical rule: Almost never tell a student, “You can’t believe *that*.” Let me illustrate. Well-meaning mavericks may tell a young person, “You can’t believe that life was created a few thousand years ago if you are honest with the scientific data.” Similarly, well-meaning conservatives may instruct a student with non-conformist tendencies, “You can’t believe in long-age creation and be faithful to Adventist doctrine.” Each of these assertions expresses a valid concern—Adventist young people must be called to honestly engage the available evidence, and to carefully consider how their conclusions relate to well-founded Christian doctrine. However, when such concerns are formulated as a stark, black-and-white choice, some students may take these arguments seriously and abandon Christian faith.

Opportunity 4: Cultivate Intellectual Virtues

As Christian educators, we desire to instill more than skillful thinking in our students. We seek to help them develop intellectual virtues that will channel their thinking toward the true and the good. As a form of character development, the formation of intellectual virtues involves sustained practice, especially in adversity. Teachers may thus model and invite practice of these virtues as they lead students through challenging intellectual terrain.

What are the virtues that we seek to teach? Christian philosopher W. Jay Wood examines intellectual virtues as a framework to think about epistemology (the branch of philosophy concerned with how we know).¹¹ He treats a number of such virtues and contrasts them with corresponding vices. These include studiousness (versus vicious curiosity), intellectual honesty (versus dishonesty), and wisdom (versus folly). We want our students to studiously apply themselves as they gain knowledge, even when that knowledge is uncomfortable or

challenging, but we don't want them to gain that knowledge for vicious purposes (e.g., to harm the environment or cast doubt on the integrity of others). We want them to engage knowledge honestly and to avoid conscious (or subconscious) self-deception, especially when acquired knowledge fails to agree with their presuppositions. And we want our students to display wisdom—to show that they understand the proper place of their learning in a broader life of faith, hope, and love grounded in the “fear of the Lord.”¹²

A final virtue that deserves particular attention may be termed *confidence-with-humility*, which contrasts with the vices of spinelessness and intellectual pride. We seek to arrive at truth by faithful study of God's revelation in nature and the Bible, and believe that we have made progress toward it. Yet we realize that our present knowledge—both biblical and secular—is tainted by our limitations, is certainly incomplete, and in some respects must be wrong. This provides a wonderful opportunity to model personal confidence in God and His revelation to us—even when we have unanswered questions—along with genuine humility in the face of our humanity. As contemporary pastor Rob Bell has written, “Questions bring freedom. Freedom that I don't have to be God and I don't have to pretend that I have it all figured out. I can let God be God.”¹³

As Christian educators, we will continue to face challenging topics as we engage an increasingly connected and complex world. Let's take the challenges head-on, and leverage them to help accomplish the goals of Christian education! Our students deserve no less. ✍



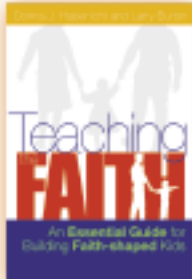
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