

WHEN SCIENCE AND RELIGION MEET, HOW DO WE KEEP FAITH?

BY HENRY ZUILL

Several years ago, I visited a former schoolmate whom I had not seen in many years. In the meantime, he had become a successful physician. He had been very much involved in and valued science and also appeared to be active in the church.

As we visited on Sabbath afternoon, we shared many memories of people and events. He showed me his ample library, of which he was justly proud. After looking at a number of his valued books, my eyes fell upon several about church history. At the time, I had been studying the life of an English reformer, so I paused to look more carefully. He pointed out several of special significance, but added, "I no longer believe."

I thought, "How tragic," turned to him, and asked, "Is that irrevocable?"

"I think so," he concluded, with a note of sadness, I like to think.

He said he continued his relationship with the church and fellow members because so many people would be affected by his decision, but he had lost faith. I'm sure he was trying to be honest with himself and me, but I felt sad as I left him that day.

Where had this problem started? What could I have done to give my friend greater assurance in God? As a professor of biology, I frequently ask whether I am doing enough

for my students. Can I give them what they need to keep from following a similar path?

Who's Rocking the Boat?

Many scientists say that religion has no place in science. And science has no place in religion, according to some believers. Yet we live in a world in which science is pervasive. At the same time, religious faith is still an important force in society, and we who believe consider it the answer to human problems. So there is no way to avoid a meeting of the two. When science and Scripture meet, how should people react? How can we steady our "boat of faith" when these two currents rock it violently?

Discoveries in science frequently challenge our ideas about the way God acts in our world's affairs. On the other hand, ideas from religion constantly intrude into the thoughts of those who are involved in both science and faith. How do we bring the two together for ourselves and our students without losing faith?

Science and technology have done much to benefit our lives. We only have to think of advances in medicine, agriculture, nutrition, transportation, communications, and so many other areas of life today to realize this. I am writing this article on a computer. I can send the manuscript via satellite around the world. Only a few years ago I could not have imagined that ever being possible. And who knows what might be just over the horizon? I value what science and technology have done for me. I'm sure most feel the same way. But I also value my hope as a Christian, even though my beliefs are sometimes challenged by ideas from science.

Living at the Interface

People at the interface of science and religion may react in one of several ways: Some reject science and ignore it as much as they can. They persuade themselves that science cannot be trusted, that it isn't truthful and threatens faith. They wish it

would go away. They would prefer to have lived hundreds of years ago when there was less hostility between religion and science.

On the other hand, some reject religion and implicitly accept science. Seeing all of the wonderful things that science and technology have accomplished, they cannot believe that science could be wrong. They see religion as merely ancient superstition.

Is there a place where science and faith can meet amicably and legitimately? Is there any middle ground at all? Do they have to be confrontational?

The problem is a real one and deserves careful thought. It will not be resolved by chance; it must be a planned process. Since we live in a world of both science and religion, the two extreme positions presented above will not work. If we believe that nature is one way God communicates to us, should we not be listening?

We must keep in mind the broad picture when making faith decisions. Too many uncritically reject or accept either science or faith. How do we help students see the big picture? In this article, I will offer some suggestions for solving the problem.

The Nature of Science

First, we need to be aware that the nature of science makes it unique among academic disciplines. Science is confined to a study of the physical universe. Many ideas about nature and life, including faith, are beyond science because they cannot be physically observed or experimentally tested. How, for example, would you scientifically analyze the beauty of a musi-

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cal composition? Scientists may speak about things outside of science, but they must make a clear distinction between the way they regard them in their own minds—and their statements as scientists, otherwise confusion will result. The consequence is that, although much has been written about science and religion, many science teachers have difficulty weaving faith into their instruction. It's not that they lack faith themselves, but they don't know how to inject it into science and still be scientific.

As a result, it may not be easy to distinguish between a scientist who is a

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guided by the Holy Spirit in our search for meaning from either Scripture or nature

believer and one who is not. Some may find this confusing. The believing scientist has to express his faith in other ways as well as with scientific evidence when possible.

We have noted that science studies only the physical universe. It is also restrained by the physical limitations of the scientists themselves. They cannot know everything, be everywhere, or live forever. There is too much scientific information for one person to integrate. At best, our understandings are only partial.

The same personal limitations that restrict scientists in their scientific search also limit anyone who endeavors to find meaning in Scripture. Only as we are

can we keep from going astray.

Science professionals must keep a balanced view of science, Scripture, and life in general in order to find and keep faith. Science teachers cannot leave faith to other disciplines. Our students have a right to know what we believe and why. We have an obligation to show them the way of faith.

Science is restrained. It demands skepticism. It is an excellent background from which to examine questions and evidence that are presented to either support or question faith, but this process requires care.

So, what do we teach our students, and how do we do it?

The Scientific Process and Faith

It is important for students to learn about science as a process and about what it can or cannot be expected to accomplish. Science is a way to find out about nature. Fundamentally, it observes, asks questions, and makes and experimentally tests hypotheses in an attempt to get answers. Hypotheses are accepted or rejected on the basis of experimental results. Statistical analyses are an important part of the process; so is communication. Scientists will vigorously try to reject their own hypotheses so that, if they cannot, they will have very good reasons for accepting them. Even if hypotheses are accepted, however, this is never proof that they are true. At some future time, someone may obtain data that can be used to reject a hypothesis.

An incident from a classroom experience might help illustrate the problem that can result from failure to understand this. In a general biology class, I was lecturing on how science works. I suggested that you could prove nothing by science, depicting it as a process, when a student named Helen came to the defense of science. She just could not accept that you do not prove by science. She uninhibitedly denounced my apparent error.

I'm sure Helen was speaking from the background of the marvels of science and technology. Her faith in science was strong indeed, but not realistic. It could lead to serious faith problems.

What happens when such students are confronted with "scientific" interpretations that attack their beliefs? They need to understand in advance how science works—especially what it cannot do. When "faith" in science is kept at reasonable levels, we may be kept from expecting too much from it. We must likewise be careful about our understanding of Scripture, since it restrains us in science as well.

Where Modern Science Came From

Some historians suggest that Western Christianity was the cradle in which science developed. Although science in general seems to have abandoned this heritage, most Christians today do not reject science, but seek to find evidence for God in it. Our belief in God will always be evi-

dential and based on assurances from Scripture, science, and life experiences.

Several hundred years ago, some believers thought they could better understand God through nature. Believing that the earth was created by an orderly God led them to assume that nature was also orderly, predictable, and understandable. Those who believed in capricious gods could expect only capricious answers, so they had no interest in such unreliable sources. Science did not develop with them. It didn't develop in all branches of Christianity, either. How we see God determines the way we look at nature.

Belief led to science, but for some, science now seems to lead away from belief. This does not have to be so, however. Belief should lead us to expect confirmation of faith in nature. However, this requires patience. Our belief should give us the integrity to look for honest answers and to reject those that are questionable—even those that we would like to keep because they appear to support faith. Faith based on questionable evidence is shaky faith indeed. Christian scientists must be the most careful because they will be judged by a higher standard.

Basic Assumptions

The assumptions of science—that the universe is orderly and predictable and that human minds are capable of understanding it—point in the direction of faith.

When scientists perform an experiment, they expect to be able to repeat it many times and get similar answers. Science is built on trends. But what does an orderly universe mean? How did it get that way? Since science developed through the belief that one could get information about God by studying creation, so today we can return by this road to discover the Creator. We can do this through a study of the regular laws of

nature, which teach us that the universe is not an accident.

Science and Scripture: Can They Work Together?

Scripture outlines sacred history and points to a future purpose. It tells of salvation and provides reasons for hope. But

it is often silent about many things studied in science. Nevertheless, for the believer, it is a frame within which science must operate. This means that science does not receive free reign in leading us to an understanding of nature. Scripture, while not speaking specifically in many cases, still imposes restrictions for the believer, and it may also provide alternative hypotheses that a non-believer would be unlikely to imagine or consider. So, while it may restrain some hypotheses, religious belief also compensates by providing a background from which other hypotheses can be suggested.

Even though the bases for a believer's scientific hypotheses may come from

unorthodox sources, they can still be studied by science since they deal with the physical universe. Thus, such hypotheses should be acceptable to all scientists. When confirmed, the interpretations of such hypotheses should tend to confirm faith, but it must be remembered that hypotheses are tenuous, and faith must never depend on them alone. But what if the hypotheses are rejected? Must this destroy faith? No, not at all, for not all hypotheses are confirmed, and we shouldn't expect that they will be. The results should, however, cause us to re-examine our understandings and rework our hypotheses. Scientists must keep working.

Nature and Revelation: Both Are Subject to Interpretation

Both Scripture and nature have to be interpreted. We must always ask if our understanding is really what is taught by either Scripture or nature.

Nature is God's gift to us, as is Scripture. Both speak of the Creator. Nature, of course, is corrupted and not as it was in the beginning. Can it be trusted now to speak of the Creator? While great care must be taken, there is still evidence in nature that points to the Creator. Scientific explanations may be ambiguous, however—sometimes supporting faith, other times not.

Scripture also is subject to interpretation. Several Bible verses come to mind that suggest caution about our use of Scripture. The first (2 Peter 3:16) tells of people who distort and twist Scripture and advises us to be on guard. Another (1 John 4:1) gives much the same advice about those who purport to have "biblically based" teachings. It tells us to test the spirits. 1 Thessalonians 5:21 tells us to examine teachings carefully and keep what is good. This also applies to interpreta-

tions from science.

We must use care in accepting anything from either science or Scripture. We must always question and evaluate. Many Christians have been taught that skepticism is wrong, but not to be properly skeptical is foolish. Certain types of skepticism may be unhealthy, but we must also beware of the other extreme—naive acceptance of almost anything. Somewhere in between is where we should be.

Nothing erodes Christian faith like having a belief, supposedly Bible based, that is shown to be wrong, especially when science does the exposing. Our assurance must be in the Creator as understood in Jesus, a real person we have learned to trust from personal experience, not in narrow human interpretations or less-than-well-supported speculations.

Science can help our understanding of the Bible, and the Bible can guide our understanding of nature and the use of science. They may not speak specifically to each other, but, for the believer, they impose restraints in both directions.

Scripture and science come together most often when questions about origins arise. Science sometimes gives answers that we like. But science can be difficult, too. Our understanding of Scripture has been modified by science, and over the centuries beliefs and interpretations of the Bible have directed our science. Evidence may be examined from several viewpoints. In the area of origins, there may be many explanations of the evidence. We can compare these with Scripture. Students must be shown this and be taught to integrate the evidence into the broad picture of science and Scripture.

An example of a scientific interpretation that has entered our biblical worldview is continental glaciation. Once it was thought that this idea could not be accommodated biblically. However, the evidence favoring it is very strong, and it is now

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generally accepted by creationists. On the other hand, evidence relating to the fossil trees of Yellowstone National Park has been reinterpreted as different people have continued to study them. Now they are understood in a way that may be accommodated within our understanding of Scripture.

Publications by the Geoscience Research Institute such as *Origins* and *Geoscience Reports* are valuable sources of information. One should also be alert to articles in various periodicals and new books that may become available.

Waiting on the Lord

What do we do when interpretations of scientific discoveries challenge our understanding of Scripture? While remembering that both nature and Scripture are gifts from God, what should be our approach when science appears to demand an interpretation that Scripture evidently won't allow? Which is right and which is wrong? One or the other—or both—may be wrong. Or both could be right if we truly understood what was happening. What should be our stance when interpretations do not line up

with our understanding of Scripture or nature?

First, we must remember that evidence and interpretation are not the same. We must also keep in mind the nature of science and scientists. It is possible, however, that there may come a time when we cannot discover an answer that satisfies us. We cannot find any fault with the scientific interpretation, nor can we see any alternative interpretation from Scripture that would bring the two together. At such times it is not only acceptable to table the issue, but really very necessary to do so. Failure to arrive at an answer does not mean we never will have one. Faith, at such times, goes on trusting and is willing to wait and continue searching.

Sometimes what at first appeared very difficult becomes clearer when the problem is studied from several angles. A number of people have been working in science long enough to have seen this happen. Their experience should be an encouragement to younger scientists. Examples can be presented in which a scientific interpretation changed with addi-

tional evidence and thereby confirmed Scripture. Other times we discovered that Scripture did not teach what some had insisted it did. These kinds of studies should be shared with students to encourage them and to show the value and importance of waiting.

Seeing the Big Picture

We receive information from many sources. Every one of these shapes our beliefs. Faith is built over time through experience with God. We who teach science must help our students find faith through science, of course, but we must not forget to share faith-establishing experiences from outside of science as well. These should be reflected in classroom devotional presentations.

Faith comes from a lifetime of experiences. Jesus taught that faith is like a tiny mustard seed that germinates, grows, and becomes a mature plant (Matthew 17:20; Luke 17:6). We may begin small too, but in time, through many experiences and insights, our faith will grow well beyond our expectations, and we will reach a point of real assurance. Then, when someone points to interpretations that put our trust in question, we will not forget a lifetime with the Lord to focus on that one problem. The big picture provides balance and encourages us to wait for answers.

Looking at Nature From Many Viewpoints

Although nature is the sole domain of science, it is not excluded from other disciplines. We understand nature from many different experiences, not just through science. We see beauty in nature and appreciate it in ways that have little to say to science. Likewise, faith is built up from a variety of experiences, including experiences in nature.

While science can only speak about nature from within its limitations, it may influence our understanding and appreciation of non-scientific ideas and values, including those about nature. It certainly can and has influenced theology, the arts, and the humanities.

Nature, unfortunately, may be thought of as exclusively the domain of science. However, other disciplines have a

right to speak about nature, too. One may speak of aesthetics and nature. Science tends to be silent here. Another may see theology through nature. What about the values that nature illustrates? Is philosophy silent when it comes to nature? When other disciplines give nature over to science as its exclusive domain, they are doing a disservice. An interdisciplinary course that studies nature from the viewpoints of different academic specialties would be most valuable. It could be a powerful force for faith.

Faith Impacts: In Conclusion

The devout science professor learns humility. His hypotheses may fail as often as they are accepted, but even when they are accepted, he continues to ask God to direct his search. He leans on the Holy Spirit to give understanding and wisdom. He knows his carefully researched answers really came from the Source of all wisdom. This leads him to where he can see that he is but a child depending upon the Creator-Father. He comes to understand, perhaps for the first time, that he is part of a very large family, all of whom are children of the same Heavenly Father. There is no longer room for partiality or prejudice.

In this context, students become precious. Their feelings matter. The teacher reaches out to them in patience and kindness, but also with wisdom. He knows he may not always be understood, either in what he is trying to teach, or in the

demands he places on them, and while this may bother him, he remembers that he too has not always been understood. His experience with his students reminds him of the road he has taken in life with his own teachers, and especially with God.

As faith has impacted the teacher, so through him it impacts his students. He must be willing to go the extra mile when instructing them, just as God has gone the extra mile with him. His faith brings faith to them.

Far from being a road that leads away from faith, science may be a good starting point to lead to faith, not only for the professor, but through him for his students as well. Just as science is necessarily restrained, so faith too restrains the scientist professor. Acting together, nature and revelation instruct him. When others take off on fanciful theological or scientific journeys, God's lessons in both nature and Scripture hold him back and provide balance.

As shoals and reefs may be hidden by the brilliance of the sun reflecting off the surface, so the devout science professor knows there are hidden menaces awaiting him, too, when he turns away from the charts and instruments with which he has been provided. But in depending upon his navigational aids, he can steer a steady course to faith, taking his students with him. ✍

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