Chapter Sixteen

CONCLUSION

This dialogue between science and Christian faith has suggested a continuing problem related to human understanding of the kind of world in which we live. Both science and faith deal with data that requires interpretation. Unfortunately, both science and faith can mistake an interpretation of the data for the reality behind the data.

Issues in Dialogue

When a person observes the sun rising in the east, making its way across the sky, and setting in the west day after day, year after year, the self-evident truth of the movement of the sun is obvious to all. This commonly held worldview did not require elaboration, because everyone knew it. People accept the worldview, living their lives based on this elaborate view of how the world works, until some great catastrophe shakes confidence in all the assumptions of the society. People rarely recognize the difference between the data and their interpretation of the data.

Five hundred years ago, Western society was beginning to go through a change in worldview. It involved more than a single catastrophe. New ways of understanding the world had been emerging with greater rapidity since the thirteenth century. In the fifteenth century, however, the eastern Roman Empire and its glorious capital of Constantinople fell to the Turks, and a series of adventurers sailed to a new world, eventually circumnavigating the globe. By the early sixteenth century the authority of the pope and the holy Roman emperor had been challenged in such a way that neither would ever recover their old position within society. The assumptions of the average person were changing. The old feudal

system with a top-down series of relationships was giving way at all levels of society. Local princes wanted autonomy from the emperor. Clergy challenged the authority of the pope. Peasants wanted a life of their own.

Ideology and Philosophy

During the modern age, the commonly agreed upon worldview in the West gradually broke down. Despite a nominal acknowledgement of the God of the Bible, a Western worldview with a pantheon of players began to emerge. The West became a place of ideology. Ideologies come in many forms. Ideologies may be political like fascism, democracy, or communism. They may also be economic like capitalism or Marxism. They may be social like utopianism, populism, or Social Darwinism. They may be scientific like naturalism or religious like fundamentalism and liberalism. These ideologies provide only the briefest example of the extent to which Western culture fragmented and lost a common integrating basis for worldview. Many more examples could be cited within these categories, and many more categories could be named.

When a person adopts an ideology, he or she then interprets life experience through the assumptions and affirmations of that ideology. The ideology becomes "the truth." Government bodies interpret the actions of their adversaries or of other nations through their ideology. Scientists interpret the meaning of their data through their ideology. Christians interpret the Bible and base their actions on their ideology. The ideology represents the highest value because it becomes the standard for declaring the laws of nature or the will of God. Ideology can be extremely dangerous. Ideology is a philosophical term.

Since science deals with the natural world, it is very easy for a scientist to assume that only a naturalistic interpretation of the data is valid. Dialogue is nearly impossible if the scientist says only natural processes can be used to interpret data from the natural world. An advocate of naturalism forgets that the scientific method has no mechanism for validating nonphysical phenomena. The advocates of naturalism make the logical leap that what the scientific method cannot prove must not exist.

The Problem of Interpretation

The conflict between science and faith in the late modern age, from Darwin to the present, has not been a conflict between the data of science and faith. It has been a conflict of the interpretation

of the data. This statement should not seem surprising when we consider the differences of interpretation that arise within the scientific community and within the faith community over matters that relate primarily to internal debate.

Luther and Calvin disagreed within the Protestant community over the nature of communion, while both disagreed with the Roman Church, which disagreed with the Eastern Orthodox Church. Yet all agreed about the basic data: "That the Lord Jesus the same night in which he was betrayed took bread: And when he had given thanks, he broke it, and said, Take, eat: this is my body, which is broken for you: this do in remembrance of me. After the same manner also he took the cup, when he had supped, saying, This cup is the new testament in my blood: this do ye, as oft as ye drink it, in remembrance of me" (1 Cor. 11:23–25 KJV).

In coming to the data of Scripture, everyone brought a different set of assumptions and patterns of thinking about "what everyone knows" which affected how they interpreted the data.

Within the scientific community, Einstein and Bohr disagreed with each other over the nature of the subatomic realm. Einstein saw a universe that was determined. He consistently interpreted events in the macroworld and quantum world in such a way as to reinforce this deterministic view. In contrast, Bohr, with his studies in Eastern religion, was comfortable with an indeterminate, discontinuous quantum world. Although Einstein and Bohr never agreed upon the interpretation of the quantum mechanical observations, both did agree upon the quantum mechanical experimental data. While both agreed that quantum theory was very successful, Einstein philosophically saw quantum theory as incomplete, while Bohr philosophically saw quantum theory as complete.

The history of the relationship between science and religion contains numerous examples of the clash between ideologies. The clash was not so much between the Bible and observations of the physical world. The experience of Galileo is often cited to demonstrate the ignorant superstitions of religion and the bigotry of religious people. Galileo's experience actually represents a clash of ideology within the academy of scholars. Galileo's methodology and observations clashed with the Aristotelian ideology of the academic power structure.

The Scopes Monkey Trial is perhaps the most famous example of a science-and-religion clash in the twentieth century. Again, the

term has become synonymous with ignorance and bigotry, although few people realize the ideological nature of the struggle. On the surface, it was between evolution and a one-step creation of man. For William Jennings Bryan, however, it was a fight between populism and social Darwinism. Bryan opposed Darwinism because the data of the fossil record had been interpreted to mean that the white race was the superior race. This interpretation gave great encouragement to the imperialism of the Western powers from the mid-nineteenth century through the world wars. Bryan did not oppose evolution because of the six days of Genesis 1; he believed that an old earth was consistent with the Bible.

Because of the mixture of ideology with interpretation of the data, people grew confused over what the scientific theories actually suggest and what the biblical accounts actually say. Distinctions in terminology between evolution and natural selection escape most people. Natural selection represents an ideological position that goes beyond the data to assert that life developed and proceeds entirely on its own. It excludes the possibility of God. Evolution represents a description of the data of the fossil record that indicates simple forms of life appeared first, followed by more complex forms of life over a great period of time. Evolution does not exclude God's intentional creation of life because it is only a description of the data.

At this point the conflict between science and religion rests on the meaning of time in Genesis 1. We have suggested that the text of Genesis 1 as delivered by God in Hebrew has a much wider understanding of time than the English text traditionally gives. We have suggested that the English translation tradition developed during a period in which fascination with scientific certainty influenced the interpretation of the text by the translators. This issue also affects the conflict between a Big Bang origin of the universe and an act of creation by God. The conflict centers on the discrepancy between a universe that has taken fifteen billion years to arrive at its present state and a universe which God created in one day. We have suggested that a fifteen-billion-year-old universe created in one day is not inconsistent with the biblical text.

Which Science?

We have suggested that the intense conflict between science and Christian faith over the last one hundred and fifty years arose

because Christianity had developed the habit of identifying itself too closely with science. After all, modern science is the child of Christian theology. She was born in the monastic schools that grew into the great universities. The great rationalistic tradition that produced proof for the existence of God and the philosophical tradition of systematic theology never quite let go of the desire for certainty which scientific inquiry promised. Over and over, theologians have accommodated themselves to the latest understandings of science. Accommodating to Newton produced Deism, a remote God in a mechanical universe. Accommodation to naturalism produced existentialism, neoorthodoxy, and process theology, attempts to make a case for religious experience without cognitive meaning. But what happens when the science changes?

If we were writing this book in 1900 instead of 2000, the issues would be quite different. First of all, it would have been easier to write since we would not have had to muddle our brains with quantum mechanics and chaos theory. We would be living in a static Newtonian universe, uninfected by theories of relativity and the Big Bang! It would be like living on a flat earth again before Copernicus and Columbus inflated it. If we accommodated our faith to that science, just how progressive, informed, intellectual and reliable would we be?

We have not endorsed the Big Bang cosmogony, evolutionary biology, quantum mechanics, or chaos theory. Neither have we endorsed Calvinism, Arminianism, Dispensationalism, or the social gospel. Scientific theories and Christian theologies share the fallacies of the makers. God is the maker of neither theology nor theory. God may have spoken the world and the Bible into being, but these are different from theories about the world and theologies based on the Bible.

Rather than an antiintellectual stance, we mean to advocate a more rigorous intellectual approach that recognizes our limitations as well as our possibilities. We do not disparage Sir Isaac Newton because he seems to have gotten it wrong about the universe. His Laws of Motion are helpful enough to save countless lives through the modern use of seat belts. Neither do we disparage Thomas Goodwin because he seems to have gotten it wrong about the return of the Lord Jesus Christ in 1666. He still had a fruitful ministry that brought great comfort and consolation to thousands during a time of great social turmoil.

Whatever the science is today, new discoveries made possible by the accelerating technological capacity to conduct experiments will inevitably change our understanding of major aspects of science that we take for granted. It is highly appropriate for science and faith to dialogue in such a way that Christians interact with current science and its theological implications. It is quite another thing, however, for current science to provide the basic resource for theology. For Christians, the Bible provides the basic resource. Likewise, theology cannot form the basic resource for science. The physical world provides that basic resource.

Future Dialogue

We have suggested that just as the Bible is the Word of God written, the physical world is the word of God demonstrated. As it takes faith to read the Bible with understanding and the expectation that God will make something known, it takes faith for the scientist to read the physical world. The scientist must believe the world actually exists.

The question of the objective existence of the world is probably the greatest philosophical question faced by modern science. Christians have largely missed this current crisis while focusing on old issues. Who would have ever thought that the inability to locate one tiny electron would throw the scientific community into disarray? That tiny electron has caused the kind of catastrophe that destroys an entire culture. It destroyed the ideological myth of scientific certainty. Some scientists have arrived at the logical fallacy that if you cannot know everything, then you cannot know anything.

As we have seen, alternative theories are emerging about whether the physical world actually exists. Is the world a construction of the mind? Is it an illusion? It is not necessary for a scientist to believe in God in order to do good research. Belief in God will affect other significant areas of the lives of scientists, but it is quite possible to do good research without a knowledge of God. It is possible to be a successful banker without believing in God. To be successful, however, the banker must believe in the existence of money. Likewise, does a scientist, to be successful, have to believe in the existence of the physical world? Up to now, science has never flourished in cultures that do not believe in the existence of the physical world.

Eastern religions offer a view of reality that provides for an insubstantial universe. This view has great appeal to some who are

struggling to understand the nature of reality in light of quantum mechanics. This quest to understand the nature of reality is a conversation to which Christians can contribute.

The science-and-faith debate has suffered from a conception that the Bible contains the details of creation, and it is either right or wrong. However, the Bible does not contain details about a lot of things. The Bible does not explain how quantum mechanics works. It does not describe the substructure of the atom or the relationship of DNA to heredity. But the Bible has a great deal to say about the ultimate nature of reality and the basis of the physical world. The Bible does not provide a plan for national monetary policy and the regulation of interest rates. It does not provide a plan for foreign aid to underdeveloped countries. It does not give details on how to revitalize a deteriorating inner-city slum and provide a future for its children. Most of the issues faced by modern society have no detailed strategy mapped out in the Bible. Nonetheless, the Bible contains broad transcultural principles that address these and countless other issues.

The Bible deals with broad issues that science cannot address: What is the nature of reality? What is the nature of life? Is there meaning? The Bible makes clear that God is the answer to these and other similar questions. Instead of a static universe of Bishop Ussher and Sir Isaac Newton in the sixteenth century, the grammar of the Hebrew text suggests that God is calling the universe into existence every moment from quantum chaos. This may not be what God is doing at all, but the fact of a physical universe has tremendous implications for the future of science.

The choices of science also have implications for the dialogue of faith and science. Normally referred to as ethics, science faces some enormous questions related to what it has the capacity to do. Scientific discovery inevitably leads to technological application. Did Charles Townes have any idea where his research would eventually lead when he did the groundbreaking work that resulted in the laser? Everything from speeding up checkout time at the supermarket to eye surgery have come from it. We never know where research will lead.

Did Madame Curie envision that her work would result in a nuclear arms race that almost brought the world to extinction and may yet result in nuclear terrorism? In the interplay between science and technology, the realm of faith offers a counterbalance for

thinking through the implications of the use of technology. The scientific method does not contain within it a basis for moral decision making, yet at some point someone must make moral decisions related to the application of scientific knowledge. Even the decision to make no decision represents a moral decision.

One school of thought would advocate the pursuit of knowledge wherever it leads. A thought that can be pursued should be pursued. We could apply the same view to other realms of human endeavor, whether it be commerce, philanthropy, crime, art, agriculture, gambling, religion, or sports promotion. One may say that a qualitative difference exists between human endeavors. We would agree. People approve some endeavors and disapprove others. The difference, however, suggests values—and the scientific method has no inherent value. Value comes from some other source. Value may arise solely from individual and collective human experience, or it may come from outside the human realm—from God.

If value is merely a personal opinion or a community opinion, then no essential difference exists between science and sports promotion, or faith for that matter. The nature of reality raises enormous questions about the source of values that people take for granted.

We have suggested that ideology and cultural worldview (both expressions of community opinion) represent a major source of value in the world. We have also suggested, however, that science and faith share a commitment to a value source that lies beyond the human realm. Both are driven by a desire to know what is not seen or evident, yet both proceed with the assurance that what they seek will be found.

When theology accommodates itself to science so that the theology depends upon a particular interpretation of the data, it becomes as obsolete as the old science when a new scientific understanding arises. Likewise, science can easily drift into theology when its philosophical assumptions lead it to make statements about reality that go beyond the scientific method. These issues will probably never go away. Realizing these dynamics, however, will help in pursuing constructive conversation about the nature of physical reality and ethics.

ENDNOTES

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Chapter 5

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