
CHRISTIANITY AND SCIENCE

Are They Compatible?

Del Ratzsch

Although many Christians have accepted and practiced science, and many of the best-known scientists historically have been Christians, others have felt that science is not a legitimate pursuit for Christians. What has been behind that rejection?

First, some Christians have argued that we are not to be concerned with the things of this world, and that other things related to the central tasks of Christianity—witnessing, for instance—are more important. Spreading the gospel is indeed crucial, and if we had to choose between that and doing science, science would have to take the back seat. But the choice is not an either/or choice for the Christian community as a whole, and not always even for individuals. The Christian life is the whole life, the abundant life, and it has room for fishermen, physicians, tentmakers, tax gatherers—and scientists.

Second, some Christians have felt that science was, perhaps inherently, contrary to Christianity. After all, doesn't science assume determinism (relieving us of moral responsibility) and strict uniformity (denying that God can act miraculously in the world)? Isn't it science that we have to thank for theories like evolution and the big bang, and don't they violate Scripture? Two observations are in order here. First, it is often the

rigid generalizing of the (supposed) presuppositions of science into sweeping world views (like positivism) which causes problems, rather than their proper and restricted use within science itself. Second, even if science sometimes produces individual theories which look contrary to Scripture, condemning the whole project of science might be like condemning the general enterprise of cooking because occasionally people are poisoned by improperly cooked food. Bad cooking doesn't make cooking bad. In both cases we might more properly condemn faulty technique than the entire project.

Third, some Christians have seen science as prying where we have no business, trying to discover hidden things. But Proverbs 25:2 tells us that "it is the glory of God to conceal a matter; to search out a matter is the glory of kings" (NIV). It is the glory of kings to search out a matter! That does not sound as though trying to discover the hidden in creation is to be seen as improper.

Reasons for Doing Science

Just because something is permissible does not mean that there are good reasons for actually doing it. Are there, for the Christian, good reasons for doing science? Does science have any distinctive value and worth for the Christian?

Many Christians have said yes, and a variety of justifications have been offered for that answer. For instance, God gave to us the task of caring for and tending our part of his creation (Genesis 2:15). But responsible stewardship requires knowledge of how the things in our keeping work, knowledge concerning the proper care of and best use of the things we have been placed over. Science can be a vehicle for acquiring such knowledge.

Further, many Christians believe that God's command to subdue the earth (Genesis 1:28) is still in force (others believe that it no longer applies after the Fall). Subduing the earth also requires knowledge, providing again a role for science.

Most Christians believe that God created us as knowing beings. Humans do always seem to want to know and to understand things. We are inveterate theorizers, and science is the most formal channel

through which that side of our natures can be expressed with respect to the workings of nature.

Reasons which are somewhat more theological have been offered also. For instance, nature is God's creation and many Christians have seen nature as revealing God. By studying nature they expect to learn not only what God did in creating but about God himself. Nature is sometimes referred to as a book of revelation, and it is through science that we learn to read that book.¹ Some Christians believe that doing science, making new discoveries, exploring the intricacies of nature and coming to appreciate the details of creation are all ways of glorifying God. God judged his creation good (Genesis 1:31). That fact alone is mandate enough for some to pursue knowing his good creation.

Finally, we have been explicitly instructed to help the sick, the hungry and the poor. Surely we are in a better position to help in such cases by virtue of knowing the causes of disease, the proper treatment of illness, how to produce better crops, and so on. Science can help us in doing the tasks we've been given.

Of course, science has played an equally prominent role in the destruction in which we humans perennially engage. In fact, historically, military demands have been a major driving force behind various sorts of research as well as a source of a great deal of the financial support for science and scientists. So also have greed (in some corporate scientific research), a desire to escape the consequences of one's actions (for instance, some research into techniques for abortion), and a variety of other not-so-pretty motivations.

Thus although science seems to be a permissible pursuit for the Christian, and although there are distinctive reasons a Christian

might have for doing science, and although science and its results can have special value for the Christian, Christians in science are still under deep obligation to look to their particular reasons for doing science. They must consider the potential for harm and rebellion against God their particular work might have, and they must work to make their efforts in science fit into the larger pattern of their obedience to God. Outside such a context, the work of a scientist—even of one who claims allegiance to Christ—can be disastrous on a variety of scales.

Christianity and the Foundations of Science

Several authors have argued that belief in a personal Creator was, if not a prerequisite for the rise of modern science, at least an enormous aid to that rise. Although other cultures boasted longer histories and technological traditions, it was in Western Europe with its strong Christian tradition that modern science emerged.

Some ancient Greeks tended to view the material world as not worthy of study. In other ancient pagan cultures, nature was seen as deity, which made poking at it (experimentally or empirically) inappropriate or even hazardous. Many Eastern cultures saw reality as ruled by rigid necessities, making empirical investigation superfluous. Others saw chance or chaos as the ruling principle, making investigation of nature

pointless and inevitably unsuccessful.

But Christians saw the world as a creation (thus orderly and uniform) of a Person (thus rational) who had created freely (thus requiring empirical investigation) unconstrained by our prejudices and expectations (thus requiring open-minded investigation). Thus the basic character of science grew to be what one could expect from a Christian outlook. That is not to say that one could deduce the basic outlines of a scientific method from Christianity, but that those outlines certainly fit well with Christian doctrine. And besides the more general themes, there are more specific characteristics and presuppositions of science that Christianity either anticipates or provides justification for.

It is generally presupposed within science that an objective, independent reality exists outside of and beyond us which science studies (contrary to various forms of both idealism and relativism). That is exactly what one would expect if the nature which science studies were a creation. God created it independently of us, according to his plan, and without our concurrence or consent.

Another key presupposition is that of the uniformity which underlies the belief in nature's predictability, and which also provides support for the usual requirement that scientific results be reproducible. But Scripture tells us of God's faithfulness in the governance of the cosmos. Uniformity is what we would expect of a creation established by a God who is faithful and governed by his edicts.

It is a further assumption of science that nature is comprehensible, that we can understand it.

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That is what we might expect, given that God created with wisdom and that the reason by which we try to understand the creation was created by the same God.

Epistemic Values

Epistemic values have recently come to be seen as crucial to theories of scientific rationality. There is Christian justification for some of the shape of emerging conceptions of scientific rationality.

Many specific epistemic values seem to be different sides of a single intuition—that nature is a cosmos. Thus we anticipate that theories which speak of patterns instead of coincidences are more likely to be right, and that is the core of the notion of simplicity. We expect that theories which speak of patterns which can cover large stretches of reality instead of restricted patches will more likely be closer to truth, and that's the basic thrust of the breadth-of-scope requirement. We expect theories which reveal new and uncover old but previously hidden patterns, and which point to novel (but correct) manifestations of previous patterns, to be more likely on the right track than those

which cannot, and that is the fruitfulness idea. And given that cosmos precludes fundamental chaos, we insist on theories which are self-consistent, and since we expect the patterns to be broad and unified, we expect that theories which are even approximately true will mesh with each other. The Christian has a powerful reason for believing that we live in a cosmos. It is God's creation, which he says reveals his character. So we expect pattern and unity. We expect order and regularity.

The patterns may be deep. We may not understand them all. But we expect them to be there. And we might even find here a justification for some more basic epistemic matters. Why should we rely on our senses, as the empirical foundation demands? Why should we think that others have experiences and make inferences similar to our own and which can function as objective, communal checks on our science? An answer to all of those questions for the Christian is that God created us, all of us, as knowing beings, and he created us for this world, to be knowing beings in this world. That does not guarantee our epistemic infallability, but it certainly gives us a place to stand epistemologically. An epistemological place to stand is something of which most secular epistemologies (perhaps all of them) cannot boast.

Realism

Although Christianity does not force it on us, it does provide some support for realism. God created us with faculties of sense and reason, and it has been held by many Christians that our senses and our reason are appropriate to and congruent with reality, if rightly used. If so, then if we do correctly use our abilities we can indeed learn truths, even hidden truths about nature.²

Without such a connection between our abilities and truth, some sort of anti-realism would be difficult to escape. A purely naturalistic evolution, for instance, would not provide us with such a connection. Evolution does not necessarily select for truth of conceptualizations. Survival and fitness depend on having the appropriate characteristics and engaging in appropriate behavior regardless of what one might think one is doing. Darwin himself recognized that, and during at least one stage he worried that evolution might undercut justification for believing in the mind's reliability.³

Thus it may be that something other than a pure naturalism is needed to justify that realism which predominates in contemporary philosophy of science and which has predominated historically among scientists. God's having created us for this world and having created us as knowing beings certainly gives us a start on such a justification.

Such a justification would provide for the possibility of our getting to theoretical truths. Our fallenness might partially explain why we have no guarantees of reaching such truths.

Attitudes and Behavior

There are a number of attitudes required to do science properly, and Christianity supports those well.

Respect for nature. For instance, Christianity fosters the proper respect for nature which good science requires.⁴ For the Christian, the world and everything in it belong to God and consequently have to be respected and treated accordingly. It is not ours to abuse. That respect is kept in balance by God's having granted us the use of nature and by God's having revealed to us

that it is, after all, a creation. Our respect for it need not (indeed, must not) reach the pitch of worship, an attitude which would effectively bring science to an end.

Moral principles and virtues. There are also moral principles essential to science. If scientists lacked honesty toward their fellow scientists, integrity concerning their work, humility before the results of their investigation, generosity with the information they gain, self-control in the face of frustration, perseverance through experimental failure, patience in times of slow progress and so on, there would be little effective science. But Scripture points to those virtues, offers help in moving toward them, and gives them a foundation in God's law and commandments.

We must keep in mind that objectivity in science is protected in part by the communal nature of science. Why is that communal protection necessary at all? One reason is that some of the above virtues aren't always honored, and the scientific community needs protection from these breaches. But those failures should not come as any surprise to the Christian familiar with Scripture's clear-eyed view of our state, our inclinations and our tendencies.

Perspective. So Christianity can provide some justification for many aspects of the character of natural science, its methods and its presuppositions. But besides that, Christianity puts science in proper perspective as being valuable, but not the ultimate value; as being competent, but not all-competent; as being a proper part of human life, but not the whole; as being something humans do, but not our highest calling; as providing solutions to some problems,

but not to the most fundamental human problem, alienation from our Creator.

Losing perspective in any of those areas creates a distortion and a denial of simple human facts of life. Losing that last perspective distorts the facts of Life.

NOTES

1. See, for example, Bernard Ramm, *The Christian View of Science and Scripture* (London: Paternoster Press, 1955), p. 25.

2. A number of points in this section were suggested by remarks of Professor Alvin Plantinga.

3. "In discovering the secret of man's lowly origin Darwin had lost confidence in the power of human reason and intuition to penetrate the riddle of the universe. He had, he confessed, an 'inward conviction' that the universe was not the result of mere chance. 'But then,' he added, 'with me the horrid doubt always arises whether the convictions of man's mind, which has been developed from the mind of the lower animals, are of any value or at all trustworthy. Would any one trust in the convictions of a monkey's mind, if there are any convictions in such a mind?'" (John C. Greene, *The Death of Adam* [Ames: Iowa State University Press, 1959], p. 336). The inner quotes are from a letter of Darwin's to William Graham, Down, July 3, 1881, taken from Francis Darwin, ed., *The Life and Letters of Charles Darwin Including an Autobiographical Chapter* (New York: n.p., 1898), 1:285.

4. This from Professor Nicholas Wolterstorff.

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