The case for creation science:

It honours God

Some people may wonder why Christians take such an interest in the physical universe. The answers are not hard to find. Throughout Scripture, nature or the creation, is commended to our attention.

> Thus we read: *"And God saw everything that he had made, and, behold, it was very good."*
>
> (Genesis 1:31)

> Not only was the Creation made good, but it was made for God's delight. The apostle John thus declares: *"Thou art worthy, O Lord, to receive glory and honour and power: for thou hast created all things, and for thy pleasure they are and were created."*
>
> (Revelation 4:11)

> Moreover we see in Psalm 33: 4-9 that the creation reveals the wonderful works of God. From verse 4: *"For the word of the Lord is right, and all his works are done in truth,"* we proceed to verse 6: *"By the word of the Lord were the heavens made; and all the host of them by the breath of his mouth."*
>
> And we conclude with verse 9: *"For he spoke, and it was done; he commanded, and it stood fast."*

Similarly Psalm 19:1, the most famous verse concerning the nature of the creation, trumpets the message that nature declares God's glory. The creative work of our God is everywhere evident.

Moreover, because God made it, we know that it is real and can be studied. We read in Psalm 104, a wonderful description of nature, that God reveals his wisdom in the things which He has created:

> *"O Lord, how manifold are thy works! In wisdom hast thou made them all: the earth is full of thy riches."*
>
> (Psalm 104:24)

In the light of God's Word

Particularly after the Reformation, believers turned their attention to the study of nature. Did it reveal God's wisdom and his glory? Then by all means we should study it. Of course these early naturalists studied nature in the light of God's Word. They did not *replace* the study of the Bible with their study of nature. Rather, the study of nature followed from their reading of Scripture. Particularly influential in the English speaking world was the Rev. John Ray (1627-1705). He had intended to serve God as a minister of the Word, but when this was denied him (through capricious rules of the king) he instead devoted himself to the study of biology. His explanations of what he observed, dominated the study of nature for two hundred years. Indeed, one historian calls John Ray's writings *"the chief obstacle to the rise of evolutionary views"* (John C. Greene. 1959. *The Death of Adam*. Mentor p. 15). In short, John Ray's entire philosophy of nature was a reaffirmation of the Christian doctrine of creation, from which his interest came in the first place.

The scientific revolution of the seventeenth and eighteenth centuries was based on the actual study of the natural world rather than mere philosophizing about it, as the classical scholars had done. There arose all too soon however, scholars who had high opinions of their own intellects. Like doubting Thomas, they declared that they would only believe things which they could directly observe. Carried to its logical extreme, this attitude, called logical positivism, denied the existence

of the supernatural and of God. Obviously Christians were never among the logical positivists. No believer denies the existence of God nor would one seek to elevate one's reason above holy Scripture.

Not directly observable

It is obvious however that there is a great deal in modern science, such as quantum physics, which is not directly observable. Indeed science has come a long way since the heyday of the logical positivists during the end of the nineteenth century. Fully aware that no scientific theory can ever be proved to be true, scientists contented themselves during the 1960s and 1970s with at least trying to prove theories false. If a theory could not be shown to be false, then scientists would for the time being, consider it true, and they would label it scientific. Anything which could not be potentially falsified, or studied through the scientific method, was beyond the definition of science. Such topics were said to be matters of belief or metaphysical theories. Historical topics such as origins, i.e. creation or evolution, were by this definition not scientific. This was embarrassing to evolutionary scientists who insisted that their interpretations were scientific, while the views of Christians were merely matters of belief. As Dr. Oosterhoff wrote, *"Darwinism was presented as a scientific theory."* However in fact, it was and is a metaphysical theory that is not based on the application of the scientific method. The real situation was that both *evolution and creation* views were metaphysical or matters of belief.

What about God?

Up to this point both the secular scientists and Christians considered actual studies of the natural world to be important. There was however one big difference. The secular scientists insisted that the only explanations which could be used, were those involving matter and natural processes. Whether God was the Creator or not, his work would never be evident in nature – or so these scientists said. For example, geologist Keith Miller described the situation in this way:

> *"If God acted in creation to bring about structure A in a way that broke causal chains, then science would simply conclude that 'There is presently no known series of cause-and-effect processes that can adequately account for structure A' ... Science cannot conclude 'God did it.'"*
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> (Keith B. Miller. 1999. in Phillip E. Johnson and Denis O. Lamoureux. *Darwinism Defeated?* The Johnson-Lamoureux *Debate on Biological Origins*. Regent College Publishing p. 113)

Dr. Miller claimed to be an evangelical Christian, but his science was distinctly secular in tone. Bible based scientists, alternatively, expecting to see God's character revealed in nature, interpreted the same data very differently. These latter scientists, mindful of Hebrews 11:3 insisted that the creation was a supernatural event.

The created world came not from gradual change, but out of nothing, in response to God's command. Thus in this famous chapter on faith, we read,

> *"Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear."*

The philosophical framework which gives structure to scientific theorizing, however, soon changed. The pretence of trying to prove grand conceptual schemes (like evolution) wrong, was now abandoned. The criterion for what is good science or bad science is now agreement among scientists. The public assumes that this agreement is based on the data from nature. This however is not the main criterion. A grand conceptual scheme or paradigm is developed partly in response to data and partly through creative imagination. For example, as Harvard paleontologist Stephen Jay Gould describes the situation:

> *"Science is not a heartless pursuit of objective information. It is a creative human activity, its geniuses acting more as artists than as information processors. Changes in theory are not simply the derivative results of new discoveries but the work of creative imagination influenced by contemporary social and political forces."*
>
> (S.J. Gould. 1977. *Ever Since Darwin: Reflections in Natural History*. W. W. Norton & Company. p. 201)

New paradigm

Once a new paradigm is adopted, scientists do not seek to prove it wrong. They merely take all the relevant data and interpret these values in terms of the paradigm. Evidence which is blatantly contrary to the paradigm is blandly ignored. Everyone admits that even a lot of contrary data will not necessarily affect acceptance of a paradigm. So what is the criterion for seeking truth? There is none. For example, in 1997 biologists Mark Siddall and Arnold Kluge remarked: *"the search for truth was a misguided venture in science from the start and one that has no basis in reality"* (in *Cladistics* 13 p. 318).

> They further opined that *"Our assertions regarding the terminal elusiveness of this truth may be seen by some as troubling or even nihilistic. We counter that it is the impossibility of achieving truth that ensures the continuation of scientific endeavour, and that guarantees our perpetual realization of that which is more valuable than truth itself – understanding."*
>
> (p. 333)

What we have now in secular science then is the evolutionary paradigm adopted to suggest the action of natural events rather than the work of God. General agreement on this interpretation by scientists is said to justify the paradigm. Whatever the evidence from nature may be, the paradigm will claim broad support from scientists. Del Ratzsch in his book *Science and its Limits: The Natural Sciences in Christian Perspective* (InterVarsity Press, chapter 4) has an excellent introduction to the nature of scientific paradigms.

Biblical revelation

Many Christians, on the other hand, insist that nature does proclaim God's character and work.

> *When these Christians study science, they identify, critique and evaluate the assumptions which lie at the root of the theories. The "tackling of assumptions" is not limited to the scholars of the Reformed tradition discussed by Dr. Oosterhoff.*

We insist that we have two yardsticks with which to evaluate scientific theories. The first criterion is Biblical revelation. Paul Nelson and John Mark Reynolds, for example, both philosophers of science, list the main distinguishing features of the recent creation position as follows: separate creation of all basic types of organisms during the creation week; mortality of all conscious creatures (animal and human) resulting from the fall of Adam into sin; and the historical flood of Noah, global in extent and effect (in *Three Views on Creation and Evolution*. edited by J. P. Moreland and John Mark Reynolds. Zondervan p. 42). The second criterion is data collected from the natural world. The contrary data that secular scientists ignore (the so called small "problems" with evolution theory), these Christians insist should lead to rejection of the evolutionary paradigm.

Creation based scientists

Some people have suggested that modern creation based scientists are merely trying to prove the Bible right.

> Dr. Oosterhoff suggests *"for some Christians ... the most effective, and indeed the only, way to deal with the challenge of evolutionism was to fight fire with fire. If unbelieving science attacked the reliability of Scripture, then Christian scientists had to come with scientific counterevidence and so validate revelation."* That however is obviously not the case. Indeed as Dr. Oosterhoff admits, *"when Christians are able to challenge a theory ... on scientific grounds, they should do so."*

However the Christian scientist goes to the heart of the matter, to a faith position, based on Scripture. Dr. Ratzsch, for example, refers to this very issue in connection with references to the supernatural in scientific explanations. He says:

> *"But that is not to say that there is anything improper or irrational per se in holding a set of epistemic values that contains **conformity** to **Scripture**, and in trying to construct one's science on that basis. That, in fact is what some contemporary creationists have tried to do.*

> *They have taken conformity to a fairly literal reading of Scripture as one of their most important epistemic values."*
>
> (Ratzsch. 2000. *Science & Its Limits* p. 154.)

And indeed, says Dr. Ratzsch, those Christians who ignore the Bible when they draw their scientific conclusions, are actually the people who have some explaining to do. He thus remarks:

> *"And if God has indeed revealed to us truths concerning the world he created, surely Christians do not want to deny those truths in their science, and given that Christians want their science to ultimately conform to what God has said, systematically ignoring what he has said requires justification, to say the least."*
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> (p. 158)

Seek truth

There are however other views about science as well. For example, Dr. Oosterhoff in the series of articles (*Clarion* vol. 51 no. 3 and following) implies that Christians should not derive any conclusions from nature, either based on biblical revelation or not. Are there fossils in the rocks? According to her approach, we should basically ignore them. As to how fossils were formed, we should draw no conclusions. In view of the fallibility of human reasoning and afraid that others will misunderstand our objectives, (i.e. others may think that we are trying to prove the Bible correct) we should ignore much of the natural world, so she suggests. Why are we able to group organisms into categories? Why do living creatures have so many features in common? While the secular world happily speculates about evolution, we should keep our mouths shut. This is a negative and defeatist view. God gave us a wonderful creation and He gave us brains to appreciate it. Rightly interpreted, nature shouts of God's work and character. Our objective as Christians in science is to seek that truth. That does not mean that every creationist statement is correct. How could they be? There are in fact numerous differences in interpretation among creation model advocates. Nevertheless our objective is to keep seeking, testing each interpretation against the data from nature and the Bible. Secular scientists, as we discussed, have long since abandoned any pretence of seeking truth. If Christians are to study science at all then, it is apparent that we have no choice but to view everything in terms of our Christian confession. That is the essence of the creation model.

Teachings of man

Dr. Oosterhoff bases her discussion of science on the views of Abraham Kuyper and Herman Bavinck. She contrasts her imputed reading of creation science with the course adopted by Kuyper and Bavinck. It is important to note that creation based scientists have more in common with Kuyper and Bavinck than Dr. Oosterhoff would think. Though it is difficult to compare the views of people separated by a gap in time and their disciplines or areas of expertise (theology, as compared to science), *they all agree that the truth of Scripture is definitive rather than the misguided belief in the objectivity of secular science*. It is evident however that truth does not stand or fall on the views of these men or any other Christian apologist of the past, however eminent. For example, some people claim that Augustine advocated an allegorical interpretation of Genesis chapter one. As a result, Edward O. Dodson, a Roman Catholic biologist from University of Ottawa declared that *"St. Augustine interpreted Genesis along lines quite congenial to evolution"* (p. 27 in Edward Dodson and George Howe. 1990. *Creation or Evolution: Correspondence on the Current Controversy.* University of Ottawa Press.). This view is open to debate, of course, but even if it were true, we would not all suddenly become evolutionists. Thus while the views of past believers are interesting from a historical point of view, they do not determine the validity of the creation model.

Using gifts to study

Are Christians using their gifts responsibly when they study nature? Certainly they are. We were given powers of observation and reasoning for that very purpose. Indeed in the Gospel of John (10:37-38) Christ instructs those who do not believe his words, to at least consider his miracles

(works), because they testify of Him. In short, the unbelievers are told to use their powers of observation. When they reflect on what they saw, they will understand that Christ and God, the Father are one. Are we then permitted to draw conclusions from our observations? Again, yes indeed we are. Naturally we must be aware that there are limits to the usefulness of our conclusions. The standards, which Christians employ, are not insurance against error or inaccuracies. All we can do is make tentative conclusions based on the evidence we have. Nevertheless the Christian standards will protect us against secular theories which deny the work of God and/or ignore the data. Not all scientific theories are worthy of equal respect. Those which do not meet traditional Christian criteria, must be rejected. It is our duty as Christians, to study the creation in a God-honouring way.

When you see an ant, or a bee, or a flower or a star, it is your joy and obligation to show some appreciation. For some people this may mean pausing for a few moments out of a busy schedule. For others, the study may extend into an entire career.

> *Go to the ant, thou sluggard; consider her ways, and be wise:*
> *Which having no guide, overseer or ruler,*
> *Provideth her meat in the summer, and gathereth her food in the harvest.*
>
> Proverbs 6:6-8

It is a fair question to ask who gave the ant her amazing social and survival skills. Many today would say that the ant illustrates Intelligent Design or the work of God, the Creator. In such small topics the study of biology begins.

Dr. F.G. Oosterhoff has set up a caricature of the creation model. This caricature she then criticizes in the name of the Reformed tradition. She implies in article #1 for example, that creationists support (at least by their actions) *"a belief in the scientific method as the way to all truth."* She says such an approach is both dangerous and demonstrably false. True enough, but these words do not apply to creationists. Similarly in article #2 she says that Reformed scholars reject *"the idea that the scientific method is religiously neutral and fully objective, yields knowledge that is absolutely certain and is the means of reaching truth in all fields of knowledge."* Can you imagine a Christian who thinks like that? Creation advocates certainly do not, but how do you convince someone who wants to think otherwise? Dr. Oosterhoff says in the course of article #2 that a suitable course of action is to tackle assumptions at the root of these problems. Again this is precisely what we do.

It should be pointed out that the scientific method and the forming of scientific theories (comprehensive explanations or paradigms) are different activities. The scientific method is a way to study certain every day phenomena. It is a tool that involves experimentation, observation and conclusions drawn on the basis of these studies. In our opinion, such studies are a reliable way of obtaining insights into the modern world. From such studies we can draw conclusions about how the living cell carries on the processes needed for life, under which conditions an organism will grow, and so on. Surely such information is as reliable as the studies from which they were derived. It is however necessary to evaluate the source of the information. Was the experimental design biased, was a valid question asked, were all the data considered, what assumptions were made before conclusions were drawn, and so on. Paradigms or comprehensive explanations, on the other hand, cannot be proved or disproved. We can however check to see how well our actual observations from nature fit predictions based on the paradigm, as to what we should find.

Purpose of science

The purpose of science, of course, is to study the natural world. Obviously however, repetitive studies of the same phenomena are a waste of time. Thus generalizations concerning certain often repeated observations are the next obvious step. Similarly experiments may help us find explanations for our observations. Moreover as a result of our observations, many people have attempted to manipulate nature. Our modern technology, agriculture and medicine are the obvious results of this approach. None of this however would be possible without some theories (mental pictures) of what is going on.

For example, the modern idea of what the atom is like, has led to the development of the periodic table of elements. Without such theoretical tools there would be no chemistry. No one supposes the present picture is absolutely correct, but it works well enough. Everyone in science understands how tentative such explanations are.

Set record straight

While some scientific theories indeed seem philosophically neutral, others are quite the opposite. Unfortunately scientists have developed theories about origins. Moreover they have very specifically been motivated to develop explanations which are atheistic in approach (i.e. deny the possibility of a supernatural cause). Creation based scientists have objected to the philosophical approach of these scientists and to how they use the data. Specifically many observations do not fit these scenarios for origin of the universe, origin of life, appearance of various living kinds, and so on. Do secular scientists correctly represent the data and the significance of their finds in such areas as biology, geology, astronomy and cosmology? If not, we should tell the world so.

In addition, some fear that there are situations in which Christians have no answers to unbelieving scholarship (e.g. Oosterhoff 2002. *Clarion* 51 #4 p. 84). Such a fear displays a lack of understanding of how science is conducted. Since there is no such thing as proof in science (as has been widely recognized for many decades), scientists simply interpret data in terms of their own a *priori* position. Secular scientists interpret in terms of the evolution model (or paradigm) and creation scientists interpret in terms of the creation model (or paradigm). For example, many Christians have worried about studies which suggest an ancient earth and an ancient universe. This is an unfounded fear, as Dr. John Byl of Trinity Western University points out:

> *"Also, it should be noted that an apparent age and history of an object are not properties intrinsic to that object. Rather they can be inferred only on the basis of the theoretical model that is used to interpret the observed characteristics. The illusion of a particular past history arises only when we view the data through the mirror of a particular set of premises... It is always possible to construct models that interpret the observational data in a manner consistent with the traditional biblical chronology."*
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> (John Byl 2001. *God and Cosmos* p. 200-201)

Supporters of the creation model have long sought to acquaint the public with this situation. All the critiques of radiometric dating discuss the effect of prior assumption on interpretation of the data.

In light of biblical revelation

Some areas of science involve mainly observations rather than experiments. Astronomy, geology (especially paleontology) and some ecology are in this category. We cannot, for example, rerun past events such as how organisms were trapped in sediments which later turned to rock. The verifiable facts are the identity of the fossil, and where it was found and in what kind of rock. Anything else is inference. This fact, creation scientists emphasize. They do hold also however, that it is reasonable to point out the rapid processes and catastrophic flooding that would be required to trap and fossilize these organisms. This information is partly derived from laboratory studies and partly from observations made in nature. Thus we interpret the fossils in terms of the worldwide flood of Noah, which was an actual worldwide event. Are fossils a suitable concern for Christians? In that God has allowed us to find them, we insist that they are a suitable area of study. Is it permissible to interpret these data in terms of biblical revelation? If it is not, there is no point in studying the fossils, or indeed any science, at all. We can indeed discover facts concerning nature and we can assess their significance (in the light of criteria discussed elsewhere). Obviously all interpretations are tentative, and will change as further information is obtained. The objective however, is to seek the truth.

Our duty

It is perfectly Reformed to contend that God gave us our talents to use in his service. This includes science. Douglas Kelly, for example, Professor of Systematic Theology at Reformed Theological

Seminary in Charlotte, North Carolina, wrote a book in 1997 which examined Scripture and scientific paradigms (*Creation and Change*. Mentor). God does not need our efforts, yet we are commanded to fight sin, the world and the devil. With all the wonderful scientific information which we have at our disposal today, it would be a deviation of our duty not to inform the world how nature testifies to God's work and glory. The Belgic Confession, Article 2, states how God makes himself known to us in creation:

> *"...by the creation, preservation, and government of the universe; which is before our eyes as a most beautiful book, wherein all creatures, great and small, are as so many letters leading us to perceive clearly the invisible qualities of God, namely, his eternal power and deity, as the apostle Paul says in Romans 1:20. All these things are sufficient to convict men and leave them without excuse."*

Thus when nature is misinterpreted to defend evolution, we have an obligation to use this "most beautiful book" of creation to demonstrate that nature clearly reveals *"his eternal power and deity."* It is a fact that many Christians have, over the years, used their God-given talents to study nature and to share with others the significance of the information that they have obtained. Is this work in the Lord's service, or is it not?

M Helder and J Helder