Faith and science in the Reformed tradition

Against evolutionism

The triumph of evolutionism in the nineteenth century led to a sharp conflict between faith and science. That conflict continues in our days. More so perhaps than formerly, the struggle is joined on the religious side not only by scientists but also by laymen. Among them is a growing number of Reformed believers – or so it would appear from the many letters-to-the-editor on evolutionism that have recently appeared in Reformed periodicals on this continent. In the large majority of cases, these letters express a belief in the literal meaning of the first two chapters of Genesis, in a "young" earth, and in six normal (that is, 24-hour) days of creation. Sometimes the writers make it clear that this conviction is a simple matter of faith in revelation; sometimes they defend their stand with arguments that seem to be derived from what is called scientific creationism, a movement that has been actively promoted among us in recent years.

We are confronted here with a new development. As I have argued on previous occasions,[1] scientific creationism has roots not in the Reformed tradition but in American Evangelicalism, and in a number of important points it differs from the approach of leading Reformed thinkers on the issue of faith and science. This is not, of course, in itself an argument against the movement. If scientific creationism provides us with valid, biblical answers to the questions raised by Darwinism, we should make use of it, whether or not it agrees with the Reformed way of looking at things. When I read the creationist articles and letters in a variety of Reformed periodicals, however, it strikes me that no attempts are made truly to analyze the movement, or to compare it with the Reformed tradition, especially as it was developed in the past century or so in the Netherlands. In fact, that tradition is hardly mentioned in our press and seems to have been forgotten among us. As a result, the impression is left that scientific creationism is the most appropriate and indeed the only means to fight an anti-Christian evolutionism.

That is unfortunate. To say this is not to suggest that I don't see any good in the creation scientist movement. On the contrary, I am in full agreement with the creationists' adherence to the truth of Scripture, and I admire their struggle against the unfounded scientific claims of Darwinism and the attempt to explain all of life in evolutionist terms. Creationists make clear that they want to take their starting point in the authority of God's infallible Word – and what Bible-believing Christian would not applaud such a stand? In short, in a variety of areas the movement's goals are to be commended. It deserves the support of Christian believers who in many different ways can and do profit from the work done by creationists.

But if the ends are good, the means to reach them are not necessarily the only or the best possible ones. In some of the publications to which I referred, I have attempted to substantiate this claim by comparing the creationist approach with that of the Reformed theologian Abraham Kuyper. In the present series I want to return to the issue, giving special attention to Kuyper's younger contemporary, the theologian Herman Bavinck. But because of similarities between the theories of the two men, I will have to begin by giving an outline of Kuyper's work in the field.

My thesis in this series will be that these Reformed thinkers provide us with a view of scientific knowledge that can serve as an alternative or essential supplement to scientific creationism. As such their work deserves the attention of all Christians. It should be especially helpful for those among us, students and others, who are in daily contact with the claims of a naturalistic science. These claims, of course, extend not only to the physical, biological, and geological sciences, but also to theology, history, and various social sciences. Indeed, as following articles will show, the

approach of these thinkers makes it possible to critique the conclusions of an unbelieving scholarship in all fields of modern learning.

The prestige of science

Before I delve into my topic, I have to explain why Christians have from the very beginning considered Darwinism to be a serious threat to the faith. An important reason is that Darwinism is presented as a scientific theory, and that in western society the conclusions of science are generally accepted as definitive. Science's prestige has a twofold foundation. In the first place, there is the fact of its explanatory power. Modern science has shown that natural phenomena, many of which were formerly held to be a result of direct supernatural intervention, are governed by natural laws and can be explained in natural terms. By doing so it has made natural processes understandable and in many cases predictable. In the words of an eighteenth-century poet, science has removed the mysteries from nature and replaced darkness with light.

A second reason for the prestige of science is its technological potential. That potential became increasingly evident in the last century and a half, which witnessed very rapid advances both in pure science and in technology, including medical technology. These developments were important in convincing the general public of science's promise. They also played a role in the secularization of western society. Noticing the improvements that technology made in their lives, people reasoned that the way to reach true and worthwhile knowledge was to follow the way of science, rather than to rely on revelation or traditional wisdom. (Many people, I should add, continue to think so today, even though belief in the benevolent nature of science and technology is rapidly declining and interest in religion is growing. But that is another story. We are now concerned not with postmodern but with modern developments.)

The trust in science and its method as a virtually infallible way to truth was not restricted to unbelievers. During the modern period many Christians also thought that the scientific method could be relied upon to lead to fully objective knowledge. The attitude of trust was strengthened by the fact that until the rise of evolutionism this period witnessed few clashes between faith and science. It is true that some conflicts did occur. The most serious one arose in connection with the ideas of Nicholaus Copernicus, who proposed a new model of the universe. Although the issues raised by Copernicanism are different from those raised by Darwinism, the story has relevance for today's situation and I will therefore relate it.

Copernicus taught (in a book published in 1543) that the sun, rather than the earth, is at the centre of the solar system and that the earth is a mere planet, rotating on its axis and revolving with the rest of the planets around a stationary sun. The Roman Catholic Church objected to the fact that this idea was taught not simply as a hypothesis but as literally true. It found this unacceptable because Copernicanism contradicted the teachings of the influential Greek philosopher Aristotle, and because it could even be interpreted as being contrary to Scripture. For did not the Bible speak of an earth that was securely "founded," and did not the Book of Joshua, when describing Joshua's war against the Amorites, state that not the sun but the earth stood still (Joshua 10:12f.)? When in the 1630s the scientist Galileo ignored church warnings and in one of his writings continued to promote the Copernican view, Rome responded by officially condemning Copernicanism, placing Galileo's book on the Index of forbidden books, forcing Galileo to recant, and punishing him with house arrest.

Calvin and Luther also were unhappy with Copernicanism, but they did not treat it as a religious heresy. In fact, Calvin denied that the theory implied a clash between revelation and science. He argued that in speaking of a moving sun the Book of Joshua simply accommodated itself to the worldview of the period and that therefore it did not condemn the sun-centred hypothesis. And in any event, he added, it was not the Holy Spirit's intention to teach astronomy in Scripture. The Reformers and their followers refrained – wisely, in retrospect – from pronouncing on the issue in confessional statements.

Rome did not rescind its condemnation of Galileo until the last century, but most Protestant theologians followed Luther's and Calvin's more moderate approach, and Copernicanism, which

was soon widely accepted in Protestant circles, did little to upset a generally amicable relationship between faith and science. On the whole, believers had a positive opinion of the scientific enterprise, which is not all that surprising, for most early scientists were themselves Christians and anxious to uphold the teachings of Christianity. Many theologians and Christian philosophers, in turn, made use of scientific findings to defend the truth of Scripture, convinced that nature as described by science so clearly revealed God's power and deity that atheism was intellectually impossible. The approach of these "natural theologians" was supported by scientists as well as laymen and strengthened the conviction that there could be no real conflict between faith and science. That conviction survived until the rise of evolutionary science.

Scientific creationism

To recapitulate my argument: the prestige of science and the trust in the near-infallibility of the scientific method, also among Christians, are major reasons why the rise of Darwinism became such a serious threat to the faith. They go a long way in explaining why some Christians abandoned the faith altogether when confronted with Darwin's hypothesis, and why others looked for a solution to the problem by combining Darwinism with belief in the supernatural, a solution that they believed they found in theories of theistic evolution.

The prestige of science and the trust in its method go a long way also in explaining the appeal of scientific creationism. The nature and goal of scientific creationism are expressed in its name. The movement calls itself "creationist" because it believes in special creation and therefore rejects Darwinism and all it stands for. It uses the adjective "scientific" because the gathering of scientific evidence is its chosen means of resolving the problems raised by evolutionary hypotheses in biology, geology, and other branches of knowledge. To reach this goal is the movement's concern. Its members make it their task to disprove evolutionary hypotheses and at the same time to collect scientific data in support of a literal interpretation of the first chapters of Genesis.

As I said before, while as a Christian I cannot but applaud the movement's goal of upholding the truth of revelation, I have questions about the sufficiency of the creation-scientists' approach. In discussing these questions I do not intend to deal with the negative judgments (not only by unbelieving scientists but by Christian ones as well) on the scientific validity of some of the movement's conclusions. Introducing that aspect would require far more space than is available to me. It could, moreover, well lead to endless arguments and counter-arguments, on the validity of which as a non-scientist I would find it difficult to decide.

The problem I want to address is located in a different area. It concerns what I see as the movement's failure to expose the assumptions underlying the modern trust in the sufficiency and full objectivity of the scientific method. I am very much afraid that, if this basic issue is not fully and clearly addressed, Christians may be led to believe that they must fight fire with fire. In other words, I fear that it may lead to a situation wherein we attempt to battle the enemy with weapons we have borrowed from that enemy, which have been shown to be faulty, but which are nevertheless a major reason for the apparent strength and the seductiveness of the Darwinist position. And such an approach, as I hope to make clear in this series, would not only be unsuccessful, it would be counterproductive.

The limitations of human reason

It is in this area, then, that I locate the greatest difference between creationism and the position held by the two Reformed scholars I mentioned – and indeed by several of their co-religionists as well. (I am thinking, for example, of the philosophers Dirk Vollenhoven and Herman Dooyeweerd, founders of the Cosmonomic Philosophy – on this continent sometimes referred to as the Amsterdam Philosophy – and their followers.)[2]

These Reformed thinkers did not despise science, nor did they denigrate the gift of human reason. They were heirs of John Calvin, and Calvin admired the accomplishments of scholarship, also of pagan scholarship.[3] In one of his writings he confessed that human reason, *"though fallen and*

perverted from its wholeness," was God's excellent gift to mankind. Its fruits were therefore by no means to be despised.

> *"...If the Lord has willed,"* Calvin wrote, *"that we be helped in physics, dialectic, mathematics, and other like disciplines, by the work and ministry of the ungodly, let us use this assistance. For if we neglect God's gift freely offered in these arts, we ought to suffer just punishment for our sloths."*

In short, Calvin did not despise the life of the mind, nor has such an attitude characterized the Reformed tradition in general. Calvin's strong assertion of reason and science as God's gifts to humanity no doubt constituted an additional reason why, before the rise of evolutionism, Reformed Christians generally had a positive view of science.

But Calvin was not uncritical, and he never denied the baleful effects of sin on human understanding. Sin, he wrote, had destroyed mankind's supernatural gifts, so that with respect to knowledge of God's grace toward mankind, even the greatest geniuses were *"blinder than moles."* And although after the Fall man retained the gift of reason, sin had weakened and corrupted it. Calvin did not explain exactly how the Fall affected man's reasoning powers, but his recognition of the corruption of the original gifts sets him apart from later Christians who endowed science with the power to reach absolutely certain truths. In what follows we will see how later Reformed scholarship built on Calvin's insights regarding not only the excellence but also the limitations of human reason.

An interesting and important point, which I can mention here only in passing,[4] is that Kuyper and Bavinck anticipated conclusions reached by increasing numbers of present-day philosophers of knowledge – many of whom, as it happens, do not share the faith of these two men. The fact that science cannot lead to fully exhaustive knowledge and that man does not know as God knows is beginning to be widely recognized in our postmodern age. Christians should take notice.

Two approaches

We asked why, from the beginning Christians have believed that evolutionism constitutes a serious threat to the faith. A major reason, we found, was that Darwinism was prevented as a scientific theory and that many believers, together with the general public, held that the pronouncements of science were all but infallible. If carefully and properly followed, the scientific method guaranteed fully objective and therefore absolutely certain knowledge.

This implied for some Christians that 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 counter-evidence and so validate revelation. It is this conviction, which is strong especially among American Evangelicals, that explains the appeal of the creation science movement. Creationists have assured me that they do not teach that the truth of Scripture can be proven in a scientific manner, and I believe them. My concern is of a different kind. It is that the movement, by concentrating on the search for scientific evidence in support of revelation *without truly challenging the scientist theory as such*, may well leave the impression among its adherents that the scientist claims are indeed correct – a conclusion which would be clearly opposed to biblical teaching. Nor is that the only drawback. The approach, as I hope to show, is also of little help in cases where unbelieving scholarship cannot be refuted by means of scientific counterevidence.

It is on these points, then, that the traditional Reformed position differs most strongly from the creationist movement. There are of course areas of contact as well. Scholars in the Reformed tradition would agree, for example, that when Christians are able to challenge a theory like evolutionism on scientific grounds, they should do so. Nor would these scholars deny that such possibilities exist, even if they are not always as sanguine in this regard as creation scientists. But if they are of one mind with creationists in their opposition to a naturalistic evolutionism, they question the sufficiency of the creation-scientist approach. For them the more promising course of action is to tackle the assumptions which lie at the root of these problems, namely 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.

This is the course adopted by Abraham Kuyper, Herman Bavinck, and their followers. These people have not by any means solved every problem that can be raised regarding the relationship between faith and science; nor has every solution they proposed escaped criticism, even within their own circles. But what these people did accomplish – and that is the pertinent issue here – was to make clear beyond doubt that the belief in full scientific objectivity cannot be maintained; that this belief, in fact, is idolatrous. By doing so they have removed the stumbling block that the modern view of scientific knowledge, and therefore also Darwin's hypothesis, have placed on the way of faith.

One possible misunderstanding must be removed at this point. By stating that subjective elements play a role in scientific knowledge, these thinkers do not attempt to promote a postmodern type of relativism and scepticism. With Calvin himself, scholars in the Reformed tradition have always received science as a most valuable gift of God, one that opens the way to reliable, true knowledge. But they also stress the tentativeness of scientific conclusions – after all, scientific theories come and go – and show how unwise it is to build one's religious faith on them.

Kuyper on scientism[5]

Abraham Kuyper (1837-1920) was a member of the first generation of those confronted with Darwinian evolutionism. (Darwin's *Origin of Species* was published in 1859, when Kuyper was 22 years old, and the *Descent of Man* twelve years later, in 1871.) Already in Kuyper's days, evolutionism served not just as a scientific hypothesis but was considered a proven theory, one that could be applied, moreover, to practically all of life and thought. Biblical studies were not exempt. Evolutionism influenced the so-called higher biblical criticism, which in the course of the nineteenth century came to dominate the theological faculties at many universities. Both Old and New Testament critics tended to see religion in developmental terms and to explain Christianity as having evolved from primitive or even legendary origins. Having received his theological education at the University of Leiden, whose theological faculty was a hotbed of modernist thought, Kuyper was well acquainted with the dominant trend in biblical studies. It is not surprising that after his conversion to the orthodox Reformed faith, and especially after he had, in 1880, established his own Christian university (the Free University of Amsterdam), he would examine the claim that science and its method lead to fully objective and universally valid truth.

The conclusions he reached can be found in several of his publications. These were issued at different times throughout his long academic career and served different purposes. As a result, there are also different emphases. Nor did Kuyper avoid inconsistencies. His goal, however, remained constant, and that goal was to show that the generally held belief in the so-called scientific method as the way to all truth is both dangerous and demonstratively false.

Why is it dangerous? First of all, of course, because the belief in scientific infallibility can, and all too often does, place a stranglehold on religious faith. The role played by evolutionism can serve as an example, but it is certainly not the only one. The belief is also dangerous because it easily leads to the opinion that matter alone exists. To explain why and how this happens, a bit more must yet be said about the prevailing view of science. According to this view, objectivity and therefore certainty can only be achieved if the researcher's personal input is ignored. The scientist's mind is supposed to become, as Kuyper describes it, a blank sheet (a tabula rasa), and is to serve as no more than a camera or a type of mechanical measuring device – something that is capable of observing and analyzing phenomena in a fully neutral manner.[6] The personal element is to be put on hold and an airtight division established between the subject (the researcher) and the object (that which the researcher examines).

This approach was followed first of all in the natural sciences, where its weaknesses were not immediately apparent. In sciences like physics, astronomy, chemistry and so on, phenomena can be objectively investigated – at least up to a point. Scientists are guided by hypotheses and in their creation the personal element does play an essential role. But for the rest a reasonable degree of

objectivity is possible. And generally speaking the object of research can indeed be seen as an *object*, as something which (in most cases) is not affected by the researcher's probing, and which can be examined – weighed, measured, analyzed – in a largely objective manner.

It is different, however, with branches of knowledge such as history, psychology, and other human and social sciences. Here one deals not with lifeless objects that can be manipulated at will, but with living, thinking, and feeling beings. In this type of work the method of the natural sciences can therefore not really be used. The prestige of the latter, however, is such that the human sciences all too often do attempt to apply the method in their research. This means that they must objectify that which they examine and that they can deal only with external aspects: with the visible, the measurable, the material. It is this approach, Kuyper shows, which encourages the reductionistic view that all things, even the spiritual, have material origins and causes. Ultimately, it implies the belief that matter alone exists; that there is no God, no soul, and no true human self.

This is the situation the Christian meets in his life and work. Because of the overwhelming prestige of science, the temptation is strong for Christians to forget that in these scientist presuppositions they are encountering idolatry. They all too easily believe, Kuyper says, that they can assume an attitude of compromise and adopt a type of *"double truth"*: that they can live with the claims of both scientism and revelation and in the end escape the dangers of a materialistic worldview. But he warns that this can't be done. It doesn't help you to argue, he says, that you won't cross the line; that your faith is secure because it is based on divine revelation. If you try to hang on to your religious belief without rejecting the false ideas of modern scientism, then you limp on two opinions and your scientific work will in the end drive you to the rejection of the spiritual.[7]

We can't serve God and idols. The way for believers to deal with the dangers of an atheistic evolutionism, and of a materialistic scientism in general, Kuyper concludes, is to reject the idea of full scientific objectivity and to insist that the input of the subject (the knower), be acknowledged – in the sciences and in all other branches of knowledge. In a similar manner, non-believers are to admit the subjective elements in their work. This means, among other things, an acknowledgement of the role of *religious* presuppositions – those of both the Christian and the non-Christian – in human knowing.

The error of scientism

The cult of scientific objectivity is not only dangerous – in the sense that it is destructive of religion and humanity – it can also be demonstrated to be false. Kuyper has given a good deal of attention to a Christian critique of the scientist claim. I have described his arguments elsewhere[8] and will not go into detail here, but a brief summary is necessary.

In his attack upon the belief in a well-nigh infallible science, Kuyper begins by drawing attention to the shortcomings and imperfections that affect the work of the scientist – who is, after all, a fallen and fallible being like the rest of humanity. He points out that scientists are subject to bodily and psychological weaknesses, that they are not necessarily free from self-deception, that they are prone to make mistakes in observation, memory, and thinking, and that they may be tempted to pursue their own selfish interests. In addition, they are influenced by such factors as their education, the language of their community, the views of other thinkers in the field, and their own political and social environments. All this means that they are not the detached, autonomous, self-sufficient thinkers that the believers in the cult objectivism believe a person has to be (and in fact can be) in order to achieve objectively valid knowledge.

If people really paid attention to the many obstacles to scientific objectivity, Kuyper says, their reaction would not be one of unquestioning belief in scientific truth, but rather one of full-fledged scepticism. That this does not normally happen he explains with reference to yet other subjective elements in human thought, namely common sense, natural wisdom, and, especially, a mental faculty or function which he calls faith. Kuyper's usage of the term faith in this context has aroused criticism, since he is not speaking here of religious faith. Rather, he is thinking of an attitude of mind that is religiously neutral and serves merely to convince people of the reliability of their observations and reasoning, thereby keeping the danger of all-out scepticism at bay.

The appropriateness of calling such a function or attitude “faith” can indeed be questioned. It is not easy, however, to find a substitute. Among the possibilities are words like trust, or intuition, or set of presuppositions, or perhaps a combination of the three. Kuyper seems to have preferred the term faith because the element in question gives certainty in human thought apart from demonstrative proof. As such it has similarities with religious faith. He also used it to show that the modern habit of drawing a sharp distinction between knowledge and faith, calling the former objective and certain and the latter subjective and arbitrary, is nonsensical. Faith and knowledge, and therefore also faith and science, go together. As a later philosopher (Michael Polanyi) was to put it, all knowledge necessarily takes places within a framework of faith.

Kuyper goes to some length to indicate the role which faith as a common mental function plays in the scientific enterprise. He shows, for example, that it makes it possible for scientists to believe that they can trust what their senses tell them – for as sceptics have argued throughout the ages, the reliability of sense experience cannot possibly be demonstrated. It can only be believed. Faith in the non-religious sense plays a similarly essential role in reasoning. Reasoning is only possible if, for example, one assumes the reliability of the rules of logic (such as the rule that A is not not-A), for this, too, cannot be logically demonstrated.

Not in the last place, faith in the sense of trust is necessary for scientists to formulate and accept scientific laws. It is needed here because it is impossible to give exhaustive evidence in support of such laws. In many cases one cannot collect all the currently available evidence, and even if one could, there is always the possibility of counterevidence to turn up later. Here as elsewhere, one simply has to believe that the assumptions on which one operates (such as those regarding the stability and uniformity of nature) are reliable. If one did not do so, science would be impossible.

So much for faith as a common mental function. As we have already seen, Kuyper is also very much aware of the role which *religious* faith and beliefs play in human thought, in that of the Christian and in that of the atheist. Here we come to the great division – Kuyper calls it the antithesis – that he says runs through all of science and indeed through all of human life and thought. As far as science is concerned, Kuyper says that in preliminary scientific activities such as numbering, measuring, weighing, and so on, religious convictions do not normally play a role. At these levels cooperation between believing and unbelieving scientists is therefore possible. This is often no longer the case, however, when the scientists draw up hypotheses to interpret their observations. Here religious presuppositions tend to come in and must be taken into account. A primary example is Darwin’s evolutionism, which, Kuyper argues, has not been proven, can in fact be demonstrated to fail on scientific grounds, and is being accepted by many for religious rather than scientific reasons.

Conclusion

Kuyper did not develop a systematic theory of scientific knowledge, and he did not by any means deal with every question that can be asked regarding the relationship between faith and science. One of the questions he failed to answer is how the concept of the antithesis can be squared with the fact that unbelieving science produces work of real significance. He was fully aware of the value of unbelieving scholarship and shared Calvin’s admiration for the work of non-Christian scientists, philosophers, and other thinkers. At one time he speaks of Plato, Aristotle, Kant, and even Darwin, as *“stars of the first magnitude, geniuses of the highest degree.”*[9]

A closely related problem concerns the matter of cooperation between scientists with opposing religious convictions. The antithesis which Kuyper says exists between believing and unbelieving scholarship would seem to imply that Christians have to separate themselves from the mainstream scholarly enterprise and work on their own specifically Christian projects. This is indeed what on more than one occasion he seems to suggest, when he speaks of the necessity and reality of *“two sciences”* (tweeerlei wetenschap), that of the regenerate and the unregenerate. But he also believed that Christ is the Sovereign of all of life, and that therefore the believer may not isolate himself from the public sphere. To convince Christians of the need to interact with their culture, and also to explain the validity of the work of unbelieving scholarship, Kuyper had recourse to the idea of common grace. But this concept (in the way Kuyper systematized and used it) introduced

difficulties of its own, particularly in the religious field.[10] And it contradicted the idea of the antithesis, an idea that he never abandoned.

Kuyper's colleagues and heirs inherited these and other problems. In following articles we will note whether, and if so to what extent, one of them, namely Herman Bavinck, was able to resolve these problems. We will give special attention, however, to the manner in which he expanded on Kuyper's truly positive contribution to the debate on faith and science, namely his demonstration of the importance of the subjective element, including the element of religious faith, in human knowing.

Herman Bavinck

Herman Bavinck (1854-1921) was the son of Jan Bavinck, a minister in the Dutch Christian Reformed Church which in 1834 had seceded from the liberal state church. The churches of this secession (the so-called first secession or *Afscheiding*) had established their own seminary, the Theological School of Kampen, and upon completion of his secondary education the young Bavinck became a student at that school. One year later he transferred to the University of Leiden, where in 1880 he would receive his doctorate in theology. In 1882, after a brief stint as a local pastor, he was appointed professor of dogmatics at Kampen. Twenty years later he accepted a position at the Free University of Amsterdam, where he succeeded Abraham Kuyper, who had been appointed Prime Minister. He held that position until his death in 1921.

Bavinck's decision to complete his studies not at Kampen but at the secular University of Leiden aroused opposition within his church community but did not lead to a break. A son of the Afscheiding, Bavinck would throughout his life uphold both the doctrinal and the ethical teachings of his church. As to the latter, the churches of the *Afscheiding* stressed earnestness, piety, a simple and sober lifestyle, and in general the command to avoid indulging the lust of the flesh and the lust of the eyes and the pride of life (1 John 2:9).

But while in general agreement with the teachings of the churches in which he was born, Bavinck objected to the pietism and otherworldliness of the *Afscheiding*. With Calvin and Kuyper, he believed that the church has a task with respect to the world and that therefore believers must interact with their society and culture. This conviction was an important element in his decision to study at the University of Leiden, whose theological faculty was a stronghold of modernism and of the new "scientific" approach to theology. In order to fulfil his task as a theologian, he believed, he had to acquaint himself at first hand with modern theology, and indeed with the modern world of ideas as a whole. Leiden made it possible for him to do so.[11]

"Grace restores nature"

Bavinck expressed his belief in the necessity of cultural engagement in the maxim that *"grace restores nature."* This conviction has been called the centre of his theology and philosophy, and to help us understand Bavinck, as well as the Reformed tradition in general, it will be good to stop here for a look at the statement's meaning.

The first point to be made is that the term *"nature"* in this context refers not first of all to the physical world, but to the world of culture – that is, to politics, to society and its institutions, and to learning in all its aspects. The statement is based on the confession that all of life lies under the curse of sin and is in need of God's redeeming grace, and that this grace is indeed sufficient for the restoration of a fallen humanity and a fallen world. Bavinck expressed this conviction in trinitarian terms when he wrote:

> *"The essence of the Christian religion consists in this, that the Father's creation, ruined by sin, is being restored in the death of the Son of God and recreated by the grace of the Holy Spirit into a kingdom of God."*[12]

The confession that grace restores nature was opposed to what Reformed theologians saw as two misconceptions among Christians regarding the relationship between Christianity and culture. On the one hand there were mystics and pietists who, retreating into the fortress of faith, avoided

interaction with what they saw as an irretrievably lost culture. On the other hand one encountered Christians who came close to erasing the boundary between Christianity and secular culture. That second attitude characterized the Roman Catholic Church. In the Roman scheme, the world of nature, while wounded and weakened by sin, remains good in and by itself. This means, among other things, that the Gospel is not essential for the proper operation of society, and that the state, the family, art, philosophy, science, and so on, can function quite well on their own, even though grace has the ability of raising life to a higher level.

It also means that nature can serve as a stepping stone to grace. That conviction made possible the attempt of medieval scholastics to harmonize pagan philosophy and Christian theology, and it explains why under Roman Catholicism revelation and reason, theology and philosophy, religious life and secular life, and so on, are not opposed to each other but closely related. The nature-grace dualism accounts at the same time for the belief that the church, as the distributor of supernatural grace, is above state and society and culture, and that theology is the queen of the sciences.

The Reformation rejected this division between a terrain of the profane and a terrain of the sacred, between nature and grace. According to the Reformers, nature was not profane in itself; it was created good and not as inferior to a supposedly higher realm of grace. Its goodness, however, was destroyed by the Fall, which, rather than only wounding and weakening nature, had corrupted it, making it utterly dependent on grace for its restoration. Sin having corrupted all, grace was needed to renew all; and grace extended as far as the power of sin. The Gospel therefore did have a message for human life and culture – for the state, the family and other social institutions, and also for the fields of the arts and learning. The Kingdom, as Bavinck expressed it, was not only a pearl, but also a yeast. There was nothing that could not and needed not be Christianized.

But he also acknowledged what he recognized as the truth in pietism, namely its stress on personal commitment and its concern for the one thing needful, and he warned that those who enter the world must deny themselves, take up their cross, and follow the Master. Cultural engagement was risky. Yet it was also necessary, an essential part of the believer's mandate. It was this conviction that informed the work of Bavinck and of the entire Neo-Calvinist revival in the Netherlands.

Bavinck and Kuyper

Of that revival Bavinck served, with Kuyper, as undisputed leader. Seventeen years younger than Kuyper, Bavinck underwent the former's influence, but he did not become an uncritical follower. Although he learned from Kuyper, and although in some respects he was overshadowed by Kuyper's genius, he remained an independent thinker, whose work as a systematic theologian and exegete was often superior to that of Kuyper. Bavinck's careful scholarship, together with his adherence to the traditions of the *Afscheiding*, led him to qualify such Kuyperian teachings as those regarding immediate regeneration and baptism on the ground of presumed regeneration, teachings that would play a critical role in the subsequent history of the Reformed churches.[13] For Kuyper, regeneration could be seen as no more than an unconscious process, rather than (as the Bible teaches and the Canons of Dort confess) a renewing, life-changing rebirth. Kuyper was a system-builder and tended to be speculative and imprecise in his exegetical and dogmatic work, whereas Bavinck was the careful exegete and scholar. As a commentator put it, where Kuyper reached out in breadth, Bavinck was the man who searched the depths of biblical truth.

There were agreements as well as disagreements. The two men were of one mind regarding the task of believers to be involved in their culture, and at least initially Bavinck believed with Kuyper that the Calvinist revival might bring about a general cultural renewal in the Protestant world. Bavinck did not share Kuyper's triumphalism, however, and he criticized his idea of a strict antithesis between the science of the regenerate and the unregenerate. Regeneration, Bavinck argued, is no guarantee that scientific perfection and certainty will be achieved. Kuyper confused principles with persons. He ignored the fact that Christian scholars also are sinners, and that the antithesis runs through the heart of people, including that of the believer.[14]

As to the idea of common grace, Bavinck made use of it, but he did not follow Kuyper in treating it as dogma. John Calvin, rather than Abraham Kuyper, was his mentor here. Like Calvin, Bavinck referred only occasionally to common grace. He used the term to account for the excellence of much of pagan art, learning, and morality, to explain why Christians can and should cooperate in the field of main-stream scholarship, and also to explain, in accordance with Romans 1:18ff., why unbelievers are without excuse. In many cases, however, he explained the "natural light" that one could still discern in the religious and cultural life of pagan societies not with specific reference to common grace, but as an effect of God's general revelation in nature and history. Much of it was also, he believed, a result of memories, however vague and distorted, that pagans still had of the original revelation given in paradise.[15]

Meanwhile, as critics have pointed out, Bavinck's willingness to explain the accomplishments of unbelievers with reference to common grace contradicts his conviction that it is truly *grace* (that is, Christ's redeeming grace) which restores nature. According to one commentator, E.P. Heideman, that conviction enabled him at the same time to restrict the influence of Kuyper's dogma on his thought. Generally, Heideman writes, Bavinck followed a biblical, trinitarian line in his thinking. If we continue in that line, he suggests, we can come to a biblical alternative to the doctrine of common grace. Heideman's argument is that total depravity implies the human being's refusal to work with nature in any positive manner. But although fallen man wants to deny his office of trusteeship, God does not allow him to do so. God does not leave his fallen creature alone but in his Spirit continues to be present to him. The Holy Spirit wrestles with man, forcing him to care for creation, and therefore also to engage in scientific activity. Man indeed uses this activity to assert his independence from God, yet the driving force behind his scientific activity is the work of God.

> Heideman believes that the difference between the concept of common grace and this trinitarian approach *"is as great as that which exists between Rome and the Reformation. In the doctrine of common grace,"* he continues, *"the emphasis lies in the activity of man... Sin has not yet touched all of man; there is a positive point of contact left in him... Reason can by its own power do the work given to it. In the trinitarian thought, however, it is the activity of God which is decisive. Reason, although totally depraved by sin, is driven by the Spirit of God to fulfil its office..."*[16]

Bavinck on faith and science

Among the concerns that Bavinck shared with Kuyper was the need for a critical examination of a theory of knowledge that allowed the label of truth only for conclusions that could be verified in a *"scientific"* manner. When a student at Leiden University, Bavinck had been personally confronted with the implications that this theory has for the believer, and he kept wrestling with the issue throughout his life. He discussed it in a number of his early writings, dealt with it at length in his monumental, four-volume work on Reformed dogmatics (the *Gereformeerde Dogmatiek*, 1895-1901[17]), and returned to the question in practically every publication of his later years. Bavinck's existential involvement in the problems of the relationship between faith and knowledge, together with his unswerving conviction that it is only in God's light that we see light, go a long way in explaining the appeal that much of his work still has for those who, although living in different times, are confronted with similar problems.

It is true that they will not receive answers to all their questions. Bavinck's statements on the issue were not free from inconsistencies, and not every conclusion he drew will have the approval of all his co-religionists. One reason may be that he attempted to stay away from easy solutions. Bavinck respected the work of the physical, geological, and biological sciences – and also of other branches of learning such as the new history and psychology – too much to ignore their power and persuasiveness. At one point he states that no single person, and not even a generation or an age may be able to resolve the questions that arise in connection with modern learning and modern society; that it is God who must, in the course of history, bring light into darkness.[18]

But while generous – in some cases perhaps too generous – in admitting the validity of much of current scholarship, he was also keenly aware of the weaknesses and unproven assumptions in the modern view of knowledge. He shared Kuyper's insight that theories of knowledge are not

neutral and that religious and other presuppositions influence scholarly work. And more so perhaps than Kuyper, Bavinck acknowledged the limitations of human knowing, confessing that not only in science but in all fields of learning, including theology, we know only in part. He did so, however, without lapsing into an attitude of scepticism or relativism. The fact that human knowledge is not exhaustive did not mean for Bavinck that it cannot be true, reliable, and sufficient.

Evolution

Bavinck gave attention to the problems connected with the rise of evolutionary science. Dealing with evolutionism in the context of the great scientific advances of his days, he stressed, with Calvin and Kuyper, the excellent gift humanity had received in human learning. Scholarship, including science, had benefited life in many practical ways. It had also contributed to a better understanding of revealed truth. Bavinck pointed out that Copernicanism, for example, had helped theologians in the explanation of the miracle related in Joshua 10; that studies of ancient Mesopotamia and ancient Egypt had led to a fuller understanding of various Bible passages; and that historical studies had also clarified the meaning of much biblical prophecy (*GD*, II, 458). He believed that sciences like geology and paleontology could similarly contribute to our understanding of the Bible, specifically of the creation account (*GD,* II, 449, 458).

As to biological evolutionism, Bavinck admitted that for those who do not believe in creation, the idea makes sense as an explanation of similarities between human beings and animals in anatomy, physiology, and psychology. But he also stressed that the evolutionary hypothesis was only that – a hypothesis, whose triumph had been ensured not simply by scientific evidence but also by religious presuppositions. As he pointed out, people had always known about similarities between men and animals – it explained why even the ancients already spoke of man as a rational *animal*.[19] This awareness, however, had never before led to a widespread belief in biological evolution. Furthermore, those who promoted that hypothesis did not explain such specifically human characteristics as intellect, conscience, will, and morality, nor did they account for the existence of language, of religion, art, science, and learning in general. Therefore, not only biology should decide on the question of origins, but also disciplines like theology, metaphysics, and ethics.

Bavinck paid attention also to the matter of a *"young earth"* and of the nature of the days of creation. He rejected the idea that the six days must be seen as geological periods or ages but believed that one can look at them as abnormal, lengthy, *"cosmic"* days (*GD*, II, 462). While agreeing with Calvin that it is not the Holy Spirit's intention to give lessons in biology, geology, or any other science, he believed that Scripture does shine its light over these sciences. In the account of creation, he observed, we are not confronted with myth or legend but, according to the Bible's clear intention, with history.

For that reason Christian theology has, with few exceptions, adhered to the literal, historical interpretation of the account of creation. But he added that no confession has ever made any statement as to the exact nature of the seven days, and that Christian theology has always tolerated a variety of interpretations of the creation account. In this connection he reminded his readers of Augustine's warning to believers not to be too quick in declaring a scientific theory unscriptural and wrong, but to study disputed scientific ideas and their implications carefully and so avoid making the faith vulnerable to attacks by enemies (*GD*, II, 458). As the incidents surrounding Copernicanism had shown, biblical exegesis could be erroneous.

So, of course, could the exegesis of scientific findings. Bavinck distinguished between scientific *"fact"* and scientific exegesis. Generally speaking he respected what he called *"stubborn facts"* – although he was not unaware of the subjective element even in observation. His main concern, however, was with the interpretation of the data of observation and experimentation, and especially with attempts to use these data as the basis of an overarching worldview (and therefore also as an explanation of religion). It was here that religious belief, and the subjective element in general, played the decisive role.

The admission of the role of faith in scientific interpretations did not imply for Bavinck that an objective analysis and critique of these interpretations could serve no apologetic purpose and should therefore be dispensed with. In fact, a good part of his writing on the modern theory of knowledge – as applied not only in the natural and biological sciences but also in other branches of knowledge – consisted of such a critique. In the next article we will concentrate on that aspect of his work.

Religion as evolutionary

The sciences were not the only branches of scholarship in the nineteenth century to undergo rapid expansion. Much was also done in areas such as economics, sociology, psychology, history, and biblical studies. The work in these fields, like that in the sciences proper, was influenced by the prevailing worldview. In practically all cases attempts were made to follow a method that was based on the scientific one. In many cases there was also a tendency to explain the object of investigation in developmental terms.

Bavinck gave attention to the critical approach to biblical studies, particularly to those of the Old Testament. A leader in that field was the contemporary German scholar Julius Wellhausen (1844-1918), who won international fame by attempting to interpret the Old Testament along evolutionary lines. This meant that Israel's culture as well as its religion had developed from simple beginnings to ever increasing complexity and sophistication. Because in his theory animism and polytheism were more *"primitive"* than monotheism, Wellhausen concluded that all religions in their early stages had been animistic and/or polytheistic, and that only in course of time developments took place toward monotheism. This applied to Israel's faith. The earlier books of the Old Testament, in Wellhausen's interpretation, assumed the existence of many gods; it was not until a late period, in the eighth century, that prophets arose who proclaimed that there was only one, universal, omnipotent God.

To clinch their argument about the evolution of religion, critics pointed to the religious practices of still existing backward nations. It was done on the assumption that all cultures and religions develop in an identical manner, but at vastly different rates, and that today's backward nations were still in the first stages of cultural and cultic development. Consequently, the low form of religion found among them was similar to humanity's original religion and therefore served as proof that in advanced cultures religious development had indeed been from low to high, from simple to complex.

Other aspects of the Old Testament were similarly interpreted from an evolutionary point of view. A few examples will have to suffice. According to the generally accepted chronology, Abraham and the other patriarchs lived around 2000-1700 B.C. The Wellhausen school, however, said that this was far too early a date for civilized individuals (as the Old Testament described the patriarchs) to have been around. They must therefore be the product of legend or fiction. Israelite history did not really begin until Moses and the Exodus; the entire period before the Exodus was still a time of barbarism. And not even Moses and his contemporaries had fully outgrown their primitive heritage. Theirs was not only a period of belief in a multiplicity of gods, culturally and ethically also it was still a backward time. The high moral standards as expressed, for example, in the Ten Commandments could not have originated in the times of the Exodus, but must again be moved forward to the eighth century, or even to postexilic times, that is, to the period following the return of Ezra around 450 B.C. In short, ethical monotheism – the characteristic that, according to the critics, distinguished Israel's religion from that of other nations – was a very late development.

Bavinck's response

Although Wellhausen's scheme seemed persuasive to many, not all of it, as soon appeared, could stand up under scholarly scrutiny. Already during Wellhausen's lifetime it became clear that many of his data were inaccurate, and also that his presuppositions strongly influenced, and all too often determined, his choice of evidence. As to the idea that the Old Testament teaches polytheism, for example, Wellhausen's critics pointed out that in his description of the Israelite faith he gave attention only to the religion of the masses, where lapses into paganism were indeed frequent.

From the very beginning of Israel's history, however, there had been people who upheld the Mosaic teachings and the worship of Yahweh, the one and only God, and who attempted to draw the masses away from their apostasy. Their work is mentioned throughout the Old Testament, but because these data did not fit Wellhausen's framework, they were ignored. Attention was also drawn to the tendency of evolutionists to date customs, rituals, laws, and so on, according to the age of the document in which they found them, all the while overlooking the obvious fact that old material can and does appear in later documents.

Yet another point of criticism was the evolutionists' assumption that early is necessarily primitive. The realization that the school had been misguided also in this respect was in large part the result of new work in archaeology, ancient history, and the history of religions. Archaeologists and historians provided evidence of the existence of high civilizations in the Middle East, both in Egypt and Mesopotamia (Babylonia and Assyria), during and even long before the time of the patriarchs. They also made clear that, as the Old Testament teaches, the patriarchs were in contact with Mesopotamia. The Old Testament portrayal of Abraham, himself of Mesopotamian origin, as a civilized individual was therefore not at all in conflict with the data of secular history.

Bavinck was among the scholars who drew attention to the discrepancies between Wellhausen's interpretation and the conclusions of archaeologists and historians.[20] In his critique, although he made use of the findings of historians and archaeologists, Bavinck took his point of departure in the Bible. From Scripture, he wrote, we learn that true knowledge of God was revealed to mankind at the beginning of history. This knowledge was corrupted as a result of the Fall, and eventually belief in the one universal God made room for polytheism. The confusion of speech at Babel and the dispersion of the nations no doubt aided that development: after the dispersion each ethnic group adopted and named its own god. At first monotheism may have continued within each group. But when the knowledge of the God of revelation declined still further, it can have been only a step for the nations to recognize besides the one national god a plethora of other deities, which would act as intermediaries between man and the supreme god. The same development would have taken place in Israel, had not God intervened by his electing grace and special revelation.

The evolutionary theory of religion, Bavinck argued, was not only unscriptural, it also lacked historical support. He added that this was beginning to be recognized in his days. Many scholars admitted that when theorizing about the origin of man, of his language, his religion, his ethics, and so on, they were moving into the area of prehistory, where they had to satisfy themselves with guesses and assumptions. Evolutionists had ignored that fact. They had also been mistaken, Bavinck said, in reasoning by analogy from the religions of modern *"primitive"* nations to the character of religion in the distant past. For the idea that the nations in question are closer to the original state of humanity than are more civilized peoples is only an assumption; it has not been proven and cannot be proven. During the many centuries of their existence, the cultures and religions of these backward nations must have undergone at least some change. We in fact have every right to believe that we encounter among them not simply the absence of positive evolution, but the presence of its opposite, namely devolution and degeneration.

Bavinck came with other historical arguments. He drew attention to the fact that many pagan nations have traditions of a golden age in the distant past, of a lost paradise, and of man being God's creature and of God's generation. Many of these traditions also speak of a God who is the cause of all that exists, of an ordered creation, of the existence of the invisible, of the struggle of good against evil, of the distinction between truth and falsehood, of immortality, a future judgment, and rewards and punishments in a future life. These traditions cannot be explained by theories according to which man evolved from the animal and religion from superstition and idolatry. To say that they can be so explained, Bavinck argued, is not only to be in conflict with whatever historical evidence we have, it also goes against common sense and logic. No one can take seriously the suggestion that evil and corruption are the origin of good, or that the lie gives birth to truth. How then can anyone truly believe that idolatry and superstition and the evil practices that so often go with them can have created the true religion?

> *"Without God,"* he concluded, *"without the acknowledgement of his existence, of his revelation, and of his knowability, one cannot explain the origin and nature of religion."*[21]

Christianity as derivative

Wellhausen's way of interpreting the Bible was not the only one available to radical biblical critics. There were other approaches. Among them was the one advanced by the school of the history of religions, which originated in the late nineteenth century and for some forty years came close to dominating the field of New Testament studies.

This school, which was again of German origin, agreed with Wellhausen about the evolutionary nature of religious traditions. It was not so much concerned, however, with the origin of religion as a universal phenomenon as with the comparative study of religions. Specifically, it tried to use the data of these studies to account for the origin and character of the biblical faith. Although Judaism and Christianity had risen to the highest levels, they were, according to the historians of religion, to a greater or lesser extent derivative and syncretistic. That is, they were products of, or largely built upon, ancient Hebrew and ancient pagan traditions and myths.

The school of the history of religions has lost a good deal of influence since the early twentieth century, but its theories have not been abandoned among all biblical critics, nor have they failed to influence the general public. Well into the past century one could meet the ideas, in more or less attenuated form, at secular schools and universities, for example in courses on ancient history and comparative religions. It is therefore worth our while to give some attention to these ideas and to Bavinck's response.

Although historians of religion attempted to explain both the Old and the New Testament with reference to pagan influences and sources, their work on the New Testament is probably best known. Anyone who studies that work will agree that there are similarities between the traditions in question and the Gospel account. This applies, for example, to the widespread quest for deliverance in New Testament times. The Hellenistic age – that is the period beginning with the conquests of Alexander the Great just before 300 B.C. – was a time of great insecurity in the Graeco-Roman world, an insecurity that was a result of many years of warfare and political unrest, of extremes in wealth and poverty, and also of rapid political, social, and cultural change. Alexander's conquests, and later the expansion of Rome, had erased ancient boundaries, replaced local governments with foreign and frequently repressive ones, and created a society wherein a variety of cultures, traditions, and religions were thrown together. The magnitude and rapidity of the changes contributed to a feeling that the times were out of joint and that for the world to survive a cosmic renewal was necessary. This widespread conviction explains the fact that throughout the Roman Empire predictions multiplied about the coming of a saviour.

For some this saviour would be a divine being; for others he would merely be a political leader. It seems that a combination of the two ideas occurs in the work of the Roman poet Virgil (70-19 B.C.). In one of his poems, the famous *Fourth Eclogue*, which dates from about 40 B.C., Virgil spoke of the birth of a divine son who would regenerate all things and bring to Rome and the world a golden age of peace and justice. Well into the eighteenth century, Christians believed that Virgil had predicted the coming of Christ. They venerated him, with Balaam, as a *"prophet of the Gentiles"* and often called the poem in question the Messianic Eclogue.

Modern scholars tend to believe that Virgil was influenced by both pagan myths and Old Testament prophecy. In his days many Jews, uprooted since dispersion and exile, lived in Rome and spread their teachings. The Old Testament had already been translated into Greek, and gentiles were becoming acquainted with the messianic expectations of the Jews. Some gentiles in fact had become proselytes. Virgil may therefore well have known about biblical prophecy and used it to give symbolic expression to the longing for a saviour. But at the same time, scholars believe, he probably used both Old Testament prophecy and pagan myth to glorify a Roman political leader – perhaps Mark Antony, or else Octavian, the future Caesar Augustus. To deify political leaders, and to speak of them in messianic terms, was common in his days. From Alexander the Great onward, Hellenistic emperors, influenced by oriental practices, had demanded and received divine honours. Roman emperors would follow their example. To call a king or emperor *soter* (saviour) was routine practice in the Hellenistic and Roman periods.

More important for the critics than the deification of emperors were the expectations of the coming of a supernatural saviour. Egypt, Greece, and several mid-eastern countries had myths of a god or goddess who died and rose again. Usually these myths formed the basis of nature religions, with the deities in question symbolizing natural processes such as the setting and rising of the sun, or the progression of the seasons from the death of winter to the renewal of life in the spring. Often, however, the myths were also associated with ideas of deliverance beyond the boundaries of nature. They spoke of a god who died and rose to redeem humanity, who offered delivery from sin, and who won for his followers immortality. The ideas of purification, redemption, regeneration, and unity with the godhead were symbolized by what appeared to be parallels of the Christian sacraments, namely baptism and the celebration of a communal meal. These beliefs and practices were popularized by the so-called mystery religions, which enjoyed immense popularity throughout the Graeco-Roman world in New Testament times. Although these mystery religions often displayed the degenerate practices of other pagan cults, in some cases they seem to have led to a more spiritual and ethical type of piety among their adherents.

Dreams and memories

The mushrooming of these mystery religions, and the similarities between their teachings and those of Christianity, are indeed striking, and it is not surprising that biblical critics referred to these findings in order to challenge the uniqueness of the biblical faith. Yet it is not difficult to show that here, too, presuppositions influenced interpretation, and that careful study can prove the historians in question to have failed to make their point. Bavinck was among the scholars who engaged in such study and provided arguments.

Bavinck admitted the similarities between the New Testament message and many aspects of the mystery religions, but he denied that these religions had influenced the New Testament account. If Christianity had indeed been formed by pagan traditions as transmitted by the mystery religions, he wrote, then these traditions should have been influential with Paul, John, and indeed the entire Christian community. But there was no proof whatsoever that this was the case. The faith of the Christian church focussed on the person of Christ and was hostile to all pagan religiosity. Its Scripture was the Old Testament. The fact that the New Testament uses terms (such as saviour, renewal, regeneration, and so on) which were common among the Greeks and Romans was no proof of cultural influence: the authors of the New Testament had no choice but to use the language of their time and culture. The terms did not necessarily have the same meaning as they had for the contemporaries of these authors.[22]

The question still remains, of course, how one is then to explain the similarities and parallels. Can they perhaps be seen as preparing the way for Christianity? Early Christian authors (such as Tertullian and Justin Martyr) did not think so. They and their contemporaries were convinced that the pagan sacraments were, in the words of author Stephen Neill,

> *"a diabolical parody of the Christian rites, directly inspired by the evil spirits in order to lead the faithful astray. At no time,"* Neill writes, *"have the fathers a good word to say for the mysteries; never once do they suggest that they were in some way a preparation for the Christian Gospel, or that they expressed in some dim way universal human aspirations to which the Gospel of Jesus Christ is the true answer."*[23]

As Bavinck already suggested, and as later critics have made abundantly clear, several of the pagan rites were indeed borrowed from Christianity. There were also practices and beliefs in the Hellenistic cults, however, that clearly predated the New Testament era. The myth of a dying and rising god is one of them. The explanation offered by the early church is therefore insufficient. Nor has it remained the only one among Christians. Readers of C. S. Lewis may remember that he was among those who dealt with the question of the similarities, and that he explained the traditions of a dying and rising god in terms of what he called *"dreams"* – vague memories of promises of good things, made in a distant past. Following this reasoning, one could argue that the attention the mystery religions gave to such *"dreams"* was indeed one of the means God used in preparing the Mediterranean world for Christ's coming in the flesh.

And Lewis's opinion is not unique. His explanation is similar to the conclusion of Bavinck, who saw the expectation of a saviour as originating in God's promises given after the Fall, for example in Genesis 3:15. Although among the pagans the memories of this original revelation had been sorely corrupted, Bavinck concluded that *"in its most beautiful and noblest expressions (paganism) points to Christianity."* And this, he added, is not surprising, for Jesus Christ is not only the Messiah of the Jews, but *"the Desire of all Nations."*[24]

Bavinck gave similar explanations of the parallels that exist between pagan traditions and the Old Testament, a topic to which he devoted even more attention than to the critics' treatment of the New Testament era. That aspect of his work, however, will have to be left for another occasion. We will end the present series with a concluding article on the work of Kuyper and Bavinck, giving attention, among other things, to some of the practical implications of that work, for example in the field of Christian education.

Worldview and education

Most children in our churches are able to attend a Reformed school; in many cases a secondary as well as an elementary one. At these schools they are given answers to questions about the relationship between faith and knowledge that are in agreement with the instruction received at home and in church. Later, however, many attend secular colleges and universities. Here they are confronted with ideas that are the opposite of what they were taught in their Christian environment. And even if they don't go on to college, they will still meet these ideas, for with today's pervasive printed and electronic media, anti-Christian influences reach us wherever we are. Indeed, they reach many of our youngsters well before they conclude even their elementary schooling.

Sooner or later, then, Christian students enter hostile territory, and one of the tasks of Reformed education is to help prepare them for that event. Our schools try to fulfil this mandate by reinforcing the instruction given in church and at home in biblical knowledge and related fields. If all is well, they do it also (and here we come to the task of especially the secondary school) by making students aware of the role the prevailing worldview plays in all knowledge. An essential element in that worldview, we have seen, is that only that which can be verified in a *"scientific"* manner deserves to be called truly objective knowledge; that all the rest, including faith in the truth of divine revelation, is mere subjective opinion.

As part of the ruling worldview, this belief is widely held to be true in our culture. For that reason the school's job is not finished if it deals only with the application of the modern theory of knowledge in biology and geology – for example by marshalling scientific counterevidence to evolutionary theories. Where possible this should be done, and as I suggested earlier, the work of scientific creationism can be of much help here. But we should not think that this type of approach is all that is needed.

This is so, firstly, because scientific creationism does not by any means have answers to all the questions evolutionary hypotheses raise in the sciences. (In that sense it is in a position similar to that of the evolutionists, who are themselves left with many unsolved and unsolvable problems.) Secondly, and more importantly, the secular view of knowledge plays havoc not only with the belief in special creation but opposes biblical truth in every field of knowledge. This article has shown that it challenges, for example, the uniqueness of Christianity; that it portrays religion and the moral law as having developed from *"primitive"* and perhaps even legendary beginnings; that it denies the reality of the invisible and of the spiritual; and that in the end, by its materialistic starting point, it destroys the humanity of man himself. Showing simply that there are gaps and errors in theories of biological and geological evolution, although certainly helpful, does not meet all the challenges posed by the secular view of knowledge either in the sciences or in other fields.

And in any event, as stated more than once, we should refrain from fighting the enemy on his own turf and with his own defective weapons. It can be counterproductive, and indeed dangerous, to concentrate in our Christian teaching on scientific counterevidence to evolutionism if we do not at the same time show the role which subjective factors play in human knowing. If we fail to do that, we will, whether we intend to or not, simply reinforce the scientist notion that theories of knowledge

are essentially neutral, and that science and its method indeed have the last word in the search for truth and certainty. We will then also be of little help to Christians who at the university or elsewhere are confronted with theories that they cannot refute with scientific counterevidence.

To the foundations

It was this insight that inspired men like Abraham Kuyper and Herman Bavinck and their followers to give attention not only to the *application* of the modern theory of knowledge, but also to that theory itself – that is, to its nature and the presuppositions on which it is based.

Their work in this area has been described earlier. We noted there that they did not make it their primary concern to attack secular conclusions in a piecemeal fashion – although they certainly did not avoid engaging in such attacks when the opportunity arose. But the primary goal of their work was to investigate the *foundations* of the belief in full scientific objectivity. Their conclusion, bolstered by a wealth of argument, was that this belief is unfounded; that subjective elements, such as the scientists' own beliefs and presuppositions as well as those of their society, influence the outcome of scientific research and may even determine it.

By following this approach, these Reformed thinkers removed the stranglehold that the cult of objectivism – not only in science but also in other fields of knowledge – had for centuries placed on religious faith. Revealing the faulty basis of an imperialistic scientism, they made it possible for believers to relativize its dictates, and to do so without rejecting the validity of scientific and other scholarly investigation as such.

It is important to keep that last point in mind, for many people, including Christians, believe that the denial of the scientist claim inevitably leads to scepticism and relativism. If we cannot even believe that science yields indubitable truth, they argue, then we may as well discard the hope that any truth at all can be found. Such a conclusion, however, does not follow from the position taken by Kuyper and Bavinck. Neither of them denied that reason and science are among God's excellent gifts to mankind; gifts that can, and very often do, yield true, reliable, useful knowledge. Science itself testifies to this. But they distinguished between absolute, unlimited knowledge on the one hand, and limited but reliable knowledge on the other, showing that the former belongs to God alone. By doing so they made clear that to accept the modern scientist view is to assume that we can know as God knows, and so to fall back into the sin of paradise. In short, it is not human reason as such, but the assumption that human reason can climb up to heaven, that Christians must reject.

Relative, yet reliable

But how is it possible, some may ask, to insist with these theologians that scientific (and other) knowing can be both relative and reliable? This apparent paradox constitutes a stumbling block to many people when faced with the scientist claim. It causes them either to turn to all out scepticism, or to reaffirm their belief in the absolute objectivity of scientific knowledge. Neither conclusion, however, is necessary. There is no true paradox here, and the choice is not really between scepticism and scientism. The solution to the apparent problem lies in the fact that creation is much richer than we often imagine.

This is an important point, one that should be kept in mind. People used to think that a specific set of data could support only one theory, and that that theory must therefore be accepted as absolutely true. But in fact, we have many examples where different theories, even competing ones, are capable of *"saving the appearances"* – that is, of accounting for the relevant data. Perhaps the best-known case is that of an earth-centred versus a sun-centred model of the solar system. Both of them save many of the appearances, and although the latter is the more efficient one, the former cannot therefore be called *"wrong."* Like the sun-centred model, it is based on a good deal of observation and mathematics, and for more than two millennia it has been successfully used to predict eclipses. I am told that sailors still like to follow that system in their navigation, rather than the sun-centred one.

In the choice between competing theories the *"facts"* indeed play a role, but so do subjective considerations. Copernicus' hypothesis, for example, was conceived and accepted as true well before it was supported by any empirical evidence. The society wherein Copernicus lived had long been dreaming of an infinite universe and of an earth that was not located at the centre and bottom of the system but that revolved around its sun, together with the other *"noble stars."* That dream greatly hastened the triumph of Copernicanism.[25] And there are many similar instances in the history of science. The triumph of Darwinism is one of them.

Indeed, the fact of the multiplicity of theories (that is, theories which, although different and perhaps even competing, are nevertheless all of them supported by empirical evidence) is now commonly recognized in scientific circles. It should teach us, as C.S. Lewis already suggested many years ago, *"to regard all Models* (or theories) *in the right way, respecting each and idolizing none."*[26] As far as I can ascertain, neither Kuyper nor Bavinck referred to this phenomenon of multiple theories, but its recognition would have removed some of the problems they left unresolved.

The invisible

While Kuyper and Bavinck insisted upon the need to let go of the modern view of knowledge, they also acknowledged the difficulty of doing so. The problem, they knew, was not only the fear of collapsing into scepticism. There was also the fact that for two or three centuries westerners had been told to accept as real only that which can be seen and weighed and measured. The influence of that materialistic view did not pass the Christian by. It led to an increasing agnosticism regarding the existence of the invisible and the supernatural. Even when belief in the spiritual did not disappear, it was under constant attack. In a scientific and materialistic age like the modern one it is difficult not to subscribe to the creed that *"seeing is believing."*

We have seen that Kuyper gave attention to the dangerous implications of this belief, warning of its destructive effects both on religious faith and on the view of man as a spiritual being – that is, as someone made in God's image and therefore much more than an animal, a machine, or a chance combination of atoms. In his critique of scientism Bavinck, too, spoke of the reality of the invisible and the spiritual. He did so, as we saw earlier, in connection with biological evolutionism. Evolutionists, he observed, concentrated mainly on the visible, material similarities between man and animal. They ignored man's spiritual nature, which distinguishes him from the animal and cannot be explained with reference to matter. Although invisible, Bavinck said, the world of the spirit – that is, the world of faith, hope, and love, of the imagination and the passions, of learning and language, the world also of God and divine revelation and divine providence – is by no means less real and less influential than the visible world. That which is unseen is manifest in what is seen, and man's consciousness is such that he cannot even continue to deny the existence of the invisible. This was evident already in Bavinck's own days, which witnessed a turn from a materialistic empiricism to occultism, mysticism, pagan religions, speculative philosophy, and so on – all of them means of escape from the prevailing materialism.[27] In short, human nature and human consciousness themselves testify to the reality of the spiritual.

The materialistic worldview, Bavinck showed, accounted for the attitude of reductionism – that is, the modern habit of explaining things and organisms in terms of their elementary constituents, and of explaining actions and attitudes in terms of the most basic mechanisms underlying them. In this scheme, the part determines the whole. Life is reduced to nothing more than physics and chemistry; thought is seen as simply a secretion of the brain, just as gall is a secretion of the liver and urine of the kidney; religion and piety are fully explicable in terms of psychology; and the human being is nothing but an animal or a machine or an assemblage of material particles. Analyzing these reductionist claims, Bavinck agreed that they contain elements of truth. A mechanistic description of man – to use only this one example – makes sense, for many of our organs do operate in a machinelike fashion. But such a description remains very much a partial one. Man is not only a machine, he is also a living and thinking, a feeling and believing and reasoning being. He is, moreover, God's creature, and received from God himself the breath of life. The whole is so much more than the parts.[28]

Conclusion

As the foregoing has made clear, most of the answers Kuyper and Bavinck gave to the questions raised by scientism are commonsense answers. Once you hear and consider them, you cannot but agree that they are correct. Why, then, do people, and even Christians, so easily succumb to the temptations of a materialist and scientist theory of knowledge? Or, more urgently, how can the Christian escape its influence?

Bavinck believed that if one is to overcome its allurements, an acquaintance with the presuppositions on which the theory is based is essential. He himself had chosen to be educated at a secular university in order to learn at firsthand about the modern worldview and so to find the means to analyze it and challenge its claims. This goal he kept pursuing throughout his life, both in his lectures and his publications. It is indeed unfortunate, as one of Bavinck's biographers observes, that his efforts in this and other areas have been largely discontinued after his death – perhaps, as he suggests, because of the critical developments in the Reformed churches since 1920, and also because of the challenge of Barthianism.[29] For the work that Bavinck and Kuyper began is as essential today as it was a hundred years ago. Its relevance is confirmed by the fact that, as stated in the introduction to this series, many present-day theorists of knowledge reach conclusions similar to those taught by these scholars of the Reformed tradition.

Although he was convinced that a critical engagement with modern philosophy, including the modern theory of knowledge, is necessary, Bavinck did not base his religious certainty on the outcome of such an engagement. While vitally interested in all areas of human thought and knowledge, his life manifested at the same time a *"strict concentration on that one truth, which is offered only in Christ and in Holy Scripture, and in comparison with which all the rest remains but searching and groping and failure."*[30] It was in God's light that he sought to see light. And so he insisted that religious certainty is not first of all a matter of intellectual arguments and proofs, but of the will, of the new life, of listening to and obeying the revealed Word.[31]

This conviction, however, did not mean that the value and necessity of analysis and argumentation were to be denied. Intellectual arguments by themselves could not bring about faith, but they could and should be used to support believers who were confronted by the scientist claims. They should also be used to challenge and, if possible, to convince an unbelieving world. Analyzing the prevailing worldview and attempting to provide a biblical alternative were aspects of the Christian's involvement with his culture – of his mandate, his office of trusteeship. They enabled him to make manifest that grace indeed restores nature. And that cultural task, Bavinck and Kuyper have taught us, should continue to have the Christian's attention.

FG Oosterhoff

[1] 1See, e.g., the articles "To Love God with our Mind," Part 2, *Clarion*, January 22, 1999, and "Postmodernism and the Question of Truth," Part 3, *Clarion*, April 28, 2000. For much of what follows see also my *Ideas Have a History: Perspectives on the Western Search for Truth* (University Press of America, 2001).

[2] On a future occasion I hope to give some attention to the work of this movement in the field of theory of knowledge.

[3] John Calvin, *Institutes of the Christian Religion*, II, ii, 12, 15, 16, 18.

[4] For details, see my *Ideas Have a History*, especially the Introduction and chapters 20-23.

[5] A note on some of the terms used in this article. The word "scientism" refers to the belief that the scientific method is universally applicable and guarantees full objectivity, so that the conclusions it leads to are indubitably true. The Dutch term *"wetenschap"* I have sometimes translated as "scholarship" or "learning" and sometimes as "science," more or less according to the context.

[6] 6Abraham Kuyper, *De Gemeene Gratie*, III, 4th ed. (Kampen: Kok, n.d.), p. 506. This volume contains a lengthy appendix on the sciences and the arts (pp. 487-572). For much of what follows in the present section, see that appendix, especially the chapters 3 and 4 of "De Wetenschap."

[7] *Ibid.*, p. 510.

[8] See my *Ideas Have a History*, ch. 20.

[9] Kuyper, *De Gemeene Gratie*, III, p. 498.

[10] For Kuyper's theory of common grace, see his 3-volume work *De Gemeene Gratie*, cited above. A brief account of the concept and of the problems to which it gave rise can be found in my *Ideas Have a History*, pp. 287-89. A widespread objection to the theory was that it clashed with Kuyper's idea of the antithesis, that it might well lead to further secularization, and that it encouraged attempts to christianize culture without placing Word and church central. A detailed critique of Kuyper's dogma can be found in Jochem Douma, *Algemene Genade: Uiteenzetting, vergelijking en beoordeling van de opvattingen van A. Kuyper, K. Schilder en Joh. Calvijn over 'algemene genade'* (Goes: Oosterbaan & Le Cointre, 1966). The question how one can explain, without recourse to the doctrine of common grace, that unbelieving science produces work of value is taken up in the third article of this series. See on this point also my *Ideas Have a History*, p. 290, which deals with the fact that the same data can often accommodate more than one theory, even conflicting ones.

[11] For much of what follows on Bavinck's life and work, see R.H. Bremmer, *Herman Bavinck als dogmaticus* (Kampen: Kok, 1961), and the same author's *Herman Bavinck en zijn tijdgenoten* (Kampen: Kok, 1966). A helpful summary of Bavinck's view on nature and grace, discussed in the next section, can be found in J. Veenhof, *The Relationship Between Nature and Grace According to H. Bavinck*, transl. A.L. Wolters (Potchefstroom University, 1994; Institute for Reformational Studies, 1994).

[12] Herman Bavinck, *Gereformeerde Dogmatiek*, I, 4th ed. (Kampen: Kok, 1928), p. 89.

[13] Bremmer, *Bavinck als dogmaticus*, pp. 261-272, 295-301. For Bavinck's influence on the "replacement formula" of 1905 (which served as a correction of Kuyper's theories on regeneration and baptism), see especially pp. 262, 271, 299.

[14] Similar criticisms of Kuyper's theory (which was adopted by his follower Herman Dooyeweerd) were voiced by K. Schilder and R.H. Bremmer. Both objected to the fact that this theory ignores the *contents* of knowledge. "The antithesis in philosophical thinking," Bremmer writes, "is not that of being directed to or away from God, but is that of being true or false, trustworthy or false knowledge contents." Schilder's objections are of the same nature. See on this point J. Douma, *Another Look at Dooyeweerd*, J.M. Batteau, trans. (Winnipeg: Premier, n.d.), p. 49.

[15] For Bavinck's views on common grace see, *inter alia*, his booklet De Algemeene Genade (Kampen: Zalsman, 1894).

[16] E. P. Heideman, *The Relation of Revelation and Reason in E. Brunner and H. Bavinck* (Assen: Van Gorcum, 1959), pp. 224f. See on this point also Bremmer, *Bavinck als dogmaticus*, p. 351.

[17] References in the text are to the 4th edition, 1928-1930. For these references the abbreviation *GD* will be used, followed by volume and page numbers.

[18] Bavinck, *Modernisme en orthodoxie* (Kampen: Kok, 1911), p. 16.

[19] Bavinck, GD II, 479; "Evolutie," in *Verzamelde Opstellen op het gebied van Godsdienst en Wetenschap* (Kampen: Kok, 1921), pp. 114-116.

[20] For his critique see, *inter alia*, Bavinck's *Gereformeerde Dogmatiek*, I, 286-291; II, 490-499; as well as his *Wijsbegeerte der Openbaring* (Bavinck's Stone Lectures, delivered in 1908 at Princeton, New Jersey; Kampen: Kok, 1908), pp. 151-60.

[21] Bavinck, *GD*, I, 290.

[22] *Ibid*., IV, 16.

[23] Stephen Neill, *The Interpretation of the New Testament*, 1861-1961 (London: Oxford University Press, 1966), p. 157.

[24] Bavinck, *GD*, III, 217.

[25] On this point see my *Ideas Have a History*, ch. 5. For a similar background to the rise of Darwinism, see the same work, ch. 11. 2 It is tempting to quote more of Lewis's conclusion. Referring to both the astronomical and evolutionist aspects of the present model of the universe, and suggesting that both are temporary, he states that change is most likely to come not with a revolutionary discovery of new facts, but "when, and because, far-reaching changes in the mental temper of our descendants demand that it should. The new Model will not be set up without evidence, but the evidence will turn up when the inner need for it becomes sufficiently great. It will be true evidence. But nature gives most of her evidence in answer to the questions we ask her. Here, as in the courts, the character of the evidence depends on the shape of the examination, and a good crossexaminer can do wonders. He will not indeed elicit falsehoods from an honest witness. But, in relation to the total truth in the witness's mind, the structure of the examination is like a stencil. It determines how much of that total truth will appear and what pattern it will suggest."

[26] C. S. Lewis, *The Discarded Image: An Introduction to Medieval and Renaissance Literature* (Cambridge: Cambridge University Press, 1967 [1964]), pp. 222f.

[27] Bavinck, *Gereformeerde Dogmatiek*, II, 30; *Christelijke Wetenschap* (Kampen: Kok, 1904), pp. 39-43, 53; Wijsbegeerte der Openbaring, pp. 25f, 174.

[28] Bavinck, *Christelijke Wereldbeschouwing* (Kampen: Kok, 1929 [1904]), pp. 46-51.

[29] Bremmer, *Bavinck als dogmaticus*, p. 143.

[30] *Ibid*., pp. 140f. (Bremmer quotes here a remark made, upon Bavinck's death, by the modernist theologian K. H. Roessingh.)

[31] Bavinck, GD, I, 411; *Godsdienst en Godgeleerdheid* (Wageningen: Vada, 1902), pp. 45f.