

Intelligent Design and the Catholic Tradition

In any attempt to understand the current controversy over “intelligent design” within the Catholic tradition, it is necessary to view it within the context of the Church’s understanding of the relationship between science and religion. This relationship is included in the wider view of the relationship between faith and reason. As we might imagine, in the history of the Church and certainly in modern society, there are various - often conflicting - views of the relationship between science and religion.

Currently there is general agreement that these views of the relationship between science and religion can be classified in four major categories. In our discussion, we will use the labels of these categories provided by the Catholic theologian John Haught from Georgetown University. Dr. Haught recently spoke on the subject of evolution at Kansas State University in its series on “Origins”. Haught labels these four views as: Conflict, Contact, Contrast and Confirmation. (We shall attempt to understand these views in light of the controversy concerning evolution and intelligent design.)

Four Basic Concepts of the Relationship of Science and Religion

1) Conflict

For our purposes, in discussing intelligent design, the Conflict Position declares that if Darwin is correct, it rules out the God of the Bible. There are those in both the scientific and religious communities that see no way to reconcile Darwin’s theory of evolution with religion. In other words, they believe that if Darwin’s theory of evolution is correct, as they interpret it, it rules out the existence of God. We can identify these two major intellectually opposing groups as Scientific Materialists and Biblical Literalists. Scientific materialism is often labeled *scientism* and biblical literalism is also known as *fundamentalism*.

Scientific Materialism This view is based on two assumptions or “beliefs” (1) the scientific method is the *only* guide to true knowledge and (2) matter and energy are the *only* fundamental realities in the universe.

The first assumption is about how we come to know reality. It implies that the path to true knowledge must begin with observations of empirical (sense) data. From these data a hypothesis is formulated and tested. A theory can then developed to explain the results of testing the hypothesis and predictions can be made based on the theory. For example, if fossils are found in ancient rock deposits that look somewhat like the modern horse and more recent fossils look even more like the modern horse, then a hypothesis can be proposed that horses have developed over time. The hypothesis is tested as more fossils are discovered. This testing can result in a theory that horses have evolved over time. The theory is then open to be validated or proven wrong based on new data. In science, theories are always tentative and open to be proved wrong with new data. The key here

is this assumption: *that if knowledge does not come from sensible data that can be tested, then it is not true knowledge.*

According to this view, it is possible to account adequately and to completely explain all we encounter in nature in terms of random/chance variations within the process of natural selection operating over vast eons of time. There is no scientific evidence for God and thus no need for the designer God.

This position is based on the assumption that the scientific method is the only path to truth and if it does not discover a God, no God exists. Some in this group are atheists first and use evolution to demonstrate that their atheism is justified, others maintain that their atheism is the result of their studies into the evolutionary process, which in their opinion excludes God as a necessary option to explain the universe.

Biblical Literalism Those who hold this view agree with their scientific materialist opponents that science and religion do indeed conflict, but, of course, for different reasons and with different results. This group can perhaps be broken down into two closely related positions - creationists and scientific creationists. Both groups agree that the scientific materialists have it all wrong, because biblical truth is superior to scientific truth. Their “biblical truth”, including “biblical science” is generated by a “literal” reading and interpretation of the Bible without regard to subject matter or literary form. All forms of modern, critical methods of interpreting the Scripture are rejected.

Creationists - Those holding a creationist position adopt a conflict position to the relationship of religion and science. Thus when it is obvious to them that a fundamentalist reading of the creation accounts in Scripture are radically different from science, in this case Darwin, they simply reject Darwin and his scientific materialist followers on the grounds that Scriptural truth is higher than secular scientific truth. Science can cease its investigations, because all is known through biblical accounts.

Scientific Creationists - This group attacks Darwin’s theory on “scientific grounds” pointing out gaps in the fossil record, the lack of an explanation of how matter made the transition from non-living to living matter and a host of other valid and non-valid objections. Their conclusion is that Scriptural “science” is superior to secular science and thus the Genesis creation accounts are a better scientific explanation than Darwin’s theory of evolution. Some in this group accept some evolutionary data, but declare that this is a process designed by a Creator and cannot be adequately explained without some active intervention by a “designer God”. This approach can include some form of the concept of intelligent design.

2) Contrast

The Contrast Position has no problem with Darwin’s theories as science. These theories cannot rule out the existence of God because evolution is science and science and religion operate on two different and parallel levels - revealed truth and scientific truth.

In the Catholic theological /philosophical tradition God is seen as the primary cause - the object of theology - working through secondary causes - the objects of science. All that exists is dependent on the constant creative power of God, but the natural world is viewed as complete in itself. God is not called on the fill the “gaps” as an explanation for what we fail to grasp with our scientific minds.

At the popular level, many Catholics hold a position that there is no conflict between true science and true religion, because they ask different questions, use different methods and they are not competing explanations of the same subject matter. If asked, they may say that they believe that God created the universe, but it is the business of science to show us how. While this is a major and perhaps necessary step forward from the Conflict Position, the official Catholic Tradition, especially since the pontificate of Pope John Paul II, proposes that we must take a step beyond the Contrast Position, as we shall see later.

3) Contact

The Contact Position holds that if Darwin’s theory of evolution is true, it cannot rule out the existence of God, because truth cannot contradict truth. The Contact Position comes closest to describing the official Catholic Tradition at this moment in history. John Paul II put it simply by reiterating the traditional belief that true science and true religion cannot contradict each other, but adding that there are “points of contact”. In 1988, in a *Message to the Directory of the Vatican Observatory*, he alluded to these “points of contact” by remarking that “Science can purify religion from error and superstition (and) religion can purify science from idolatry and false absolutes”.

This being said, the Catholic Tradition is just beginning to explore and understand the implications of the “points of contact” mentioned by John Paul II. It is not enough to show that evolution, as proposed by Darwin, does not contradict our religious beliefs, we must be able gain new insights into our religious beliefs in light of the science of evolution. For example, evolutionary theory can give us a deeper understanding of the immanence or presence of God in the midst of evolution. We can also understand the doctrine of creation, not as contrary to, but making evolution possible. And we can also come to understand ourselves better as organically related to our world and the entire cosmos.

Furthermore, if science tells us that “chance” plays a central role in the evolution of our world, then it may well confirm for us our religious conviction that God loves us, because love never coerces, it lets the other be free to develop and to love in return. Contrary to pantheists, the Catholic tradition maintains that God creates us and the universe as distinct from Himself. If we are truly distinct then, by definition, we and the material world must have some degree of freedom and freedom involves risks and unpredictable “chance” events. This insight is most helpful in dealing with the problem of evil.

God is our Creator not our controller or dictator. God has given the world and us a share in His creative process. He calls us to be co-creators of our destinies. Darwin has helped

us to gain a deeper understanding of the God revealed to us in Jesus. Jesus was the incarnation of a God who cares and suffers with us. While we believe that God is the ultimate cause of the structures of the universe, we need not posit a God that has designed every event in the history of the universe, but a God who holds out a promise for the future. The structures of the universe created by God must, then, include a major role for chance and novelty, a role that we are only beginning to appreciate.

4) Confirmation

This approach goes even further than the Contact Position. It is in its early stages of development by theologians and as such has not provided a general position that could be adopted or rejected by the official Catholic Church. The Confirmation Position is firmly grounded in a belief in the God of the Judeo-Christian Tradition. It rejects scientific materialism, fundamentalism, concordism and intelligent design approaches. It envisions a joining together of religion and science, with religion “confirming” the scientific (evolutionary) picture of nature, by providing a unique view of God and His relationship to all creation.

The argument that religion can confirm science begins in the Scriptures. The Old Testament understands time as a straight line, unlike the cyclical concept of time in other ancient religions, with history simply repeating itself. Thus the God of the Old Testament was seen as calling His people to look to a new future when the Rule (Kingdom) of God would be established. Jesus also spoke of the Kingdom as a living reality growing like a mustard seed. St. Paul also speaks of a new heaven and a new earth. Thus the idea of novelty, change and a future fulfillment was introduced into biblical history. Fr. Teilhard de Chardin saw all of creation heading toward an Omega point which was Christ. This idea of novelty and change certainly coincides with Darwin’s analysis of the workings of nature. So some theologians feel that religion and science are actually on the “same page” and can join together in their efforts to understand the universe given and sustained by our Creator.

To see what this approach might look like theologically, there are some handouts available written by two Catholic theologians, John Haught of Georgetown University and Sister Elizabeth Johnson of Fordham University. Each of these theologians is trying to understand how religion and science can relate in view of Darwin’s theory of evolution

Comments from the Perspective of Catholic Tradition

1) Conflict

The two “belief” systems operating in the conflict position -- scientific materialism and biblical literalism -- lack credibility because of faulty assumptions. They can each be classified as belief systems. Biblical literalism rests on certain beliefs about the inspiration and inerrancy of Scripture and is rightly criticized on those grounds by the discoveries of science and advances in modern biblical studies.

Biblical literalists fail to understand that the concepts of inspiration and the inerrancy of Scripture do not demand a literal (in their sense) interpretation of Scripture. This position is called *biblical literalism*. There is no reason to believe that the Scriptures were designed to teach science or cosmology. The Scriptures may well have assumed the science and cosmology of their historical era, but they did not intend to teach either science or cosmology. The Scriptures are a story and a message about God and His saving love for mankind.

On the other hand, the two assumptions of scientific materialism, 1) that the scientific method is the only guide to truth and 2) that matter and energy constitute all reality do not qualify as scientifically verifiable statements. Interestingly enough, neither assumption is open to verification by the scientific method. The first assumption is an epistemological (how do we know) statement and the second is a metaphysical (concerning the structure of reality) statement and neither are within the realm of science.

First, you cannot prove by the scientific method that the scientific method is the only method of acquiring true knowledge. That is an argument chasing its own tail. It is an assumption about the nature of knowledge which lies outside the realm of science. Secondly, the assumption that matter and energy constitute all reality is a metaphysical question, again beyond the realm of science. It may be true that all that science can discover using its scientific method is matter and energy, but that does not rule out other types of knowledge which can discover and explore other kinds of reality. What results from these two scientifically indefensible assumptions is something called *scientism*, not science. Science in its own field, using its own method is certainly valid and valuable, but to extend its assumptions to all fields of knowledge is unwarranted.

It is also true that scientism is often coupled with atheism. It attempts to “prove” that science has eliminated the concept and the need for God to explain reality. This is possible only by granting the assumptions of scientism. Therefore it is important to note that in the conflict position we do not have science opposed to religion, but (atheistic) *Scientific Materialism opposed to Biblical Literalism*.

From the time of Augustine in the 5th century, there has been a strong tradition in the Catholic Church which holds that *truth is one* and scientific truth and biblical truth cannot contradict each other. This is so because the same God who reveals mysteries and infused faith is the same God who bestowed the light of reason on the human mind and “God cannot deny himself, nor can truth ever contradict truth” (Dogmatic Constitution on the Church).

St. Augustine (354-430) dealt with this issue and his approach can be seen in Catholic thought throughout the centuries. For example, he wrote:

“One does not read in the gospel that the Lord said: ‘I will send you the Paraclete who will teach you about the course of the sun and moon.’, for he willed to make them Christians, not mathematicians.”

“Even a non-Christian knows something about the earth, the heavens, and the other elements of this world, about the motion and orbit of the stars and even their size and relative positions, about the predictable eclipses of the sun and moon, the cycles of the years and the seasons, about the kinds of animals, shrubs, stones, and so forth, and this knowledge he holds to as being certain from reason and experience. Now it is a disgraceful and dangerous thing for an infidel to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; and we should take all means to prevent such an embarrassing situation, in which people show up vast ignorance in a Christian and laugh it to scorn. The shame is not so much that an ignorant individual is derided, but that people outside the household of the faith think our sacred writers held such opinions, and, to the great loss of those for whose salvation we toil, the writers of Scripture are criticized and rejected as unlearned men (On the Literal Meaning of Genesis, Book 1, Ch. 19)

“If it happens that the authority of Sacred Scripture is set in opposition to clear and certain reasoning, this must mean that the person who interprets Scripture does not understand it correctly. It is not the meaning of Scripture which is opposed to the truth but the meaning which he (the interpreter) has wanted to give to it. That which is opposed to Scripture is not what is in Scripture but what he has placed there himself, believing that this is what Scripture meant.” (Epistula 143, n. 7)

In the 13 century St. Thomas indicated his agreement with Augustine when he wrote: “No opinion or belief...is implanted in man by God which is contrary to man’s natural knowledge.” (Contra Gentiles, lib.i,ch.7 (4))

And in the 19th century the First Vatican Council stated: “Although faith is above reason, there can never be any real discrepancy between faith and reason, since the same God who reveals mysteries and infuses faith has bestowed the light of reason on the human mind, and God cannot deny himself, nor can truth ever contradict truth.”

In 1893, Pope Leo XIII. issued his encyclical “Providentissimus Deus” in which he stated:

“Truth cannot contradict truth and we may be sure that if some mistake has been made either in the interpretation of the sacred words, or in the polemical discussion itself ...There can never, indeed, be any real discrepancy between the theologian and the physicist, as long as each confines himself within his own lines, and both are careful, as St. Augustine warns us ‘not to make rash assertions’.”

“It could not have been the intention of the sacred writers, or rather...of the Spirit of God, who spoke through them, to instruct us about things that

cannot be of service for the salvation of man, namely, the internal constitution of the visible world.”

Pope John Paul II continued this tradition in an address to the Pontifical Academy of Science in 1981 entitled: “Scripture and Science: The Path of Scientific Discovery” in which he said:

On the occasion of a previous solemn session (Address to the Pontifical Academy of Sciences, 11/10/79) I have already had the opportunity to tell you how highly the Church esteems pure science: It is ‘a good worthy of being loved, for it is knowledge and therefore perfection of man in his intelligence...It must be honored for its own sake, as an integral part of culture’.

The Bible itself speaks to us of the origin of the universe and its makeup, not in order to provide us with a scientific treatise but in order to state the correct relationships of man with God and with the universe. Sacred Scripture wishes simply to declare that the world was created by God, and in order to reach this truth it expresses itself in the terms of the cosmology in use at the time of the writer. The Sacred Book likewise wishes to tell men that the world was not created as the seat of the gods, as was taught by other cosmogonies and cosmologies, but was rather created for the service of man and the glory of God. Any other teaching about the origin and make-up of the universe is alien to the intentions of the Bible, which does not wish to teach how the heavens were made but how one goes to heaven.

Any scientific hypothesis on the origin of the world, such as the hypothesis of a primitive atom from which derived the whole of the physical universe, leaves open the problem concerning the universe’s beginning. Science itself cannot solve this question: There is needed that human knowledge that arises above physics and astrophysics and which is called metaphysics; there is needed above all the knowledge that comes from God’s revelation.

Speaking to the Pontifical Academy of Sciences in a 1996 address entitled “Magisterium and Evolution: Truth Cannot Contradict Truth”, Pope John Paul II said:

New knowledge leads to recognition of the theory of evolution as more than a hypothesis. It is indeed remarkable that this theory has been progressively accepted by researchers, following a series of discoveries in various fields of knowledge. The convergence, neither sought nor provoked, of the results of work that was conducted independently is in itself a significant argument in favor of this theory.

From this selection of Catholic teachings it is clear that the Catholic Church does not endorse the Conflict Position. Faith and reason and good science and good theology are not opposed to each other, in fact they can compliment each other.

2) Contrast

Historically the contrast position has been a giant step forward in viewing the relationship between religion and science. However, while it is most valuable in taking science and religion out of a permanent state of conflict, nevertheless it separates them too neatly into compartments. Science and religion should interact with each other. We simply cannot divide reality into two unrelated realms. To think that religion and science can operate side by side without needing each other is unrealistic. If created things provide a “doorway” for human reason to approach the divine, as St. Paul (Rom.1:19-20) claims and as natural theology posits, then we must know as much about the true nature of God’s creation as possible.

3) Contact

This position is another significant step forward. It acknowledge that science and religion need to work together and share information. To repeat once more the words of John Paul II “Science can purify religion from error and superstition...religion can purify science from idolatry and false absolutes”. However fruitful this approach can be, it still lacks a unified, fully integrated approach to the mysteries of the universe.

4) Confirmation

The confirmation position invites us to approach the relationship of science and religion in a unified, fully integrated way. As such it is probably an approach for the future. We will be fortunate if the majority of people can escape from the conflict position to the contrast position. The contrast position is most comfortable, but does not yield the rich benefits that could be gleaned from the integrated approach envisioned in the confirmation position. We look forward to the future with hope.

Intelligent Design

Briefly stated, the concept of intelligent design, as posited by William Behe, states that the universe and its components, especially its molecular components, are too complex to have developed on their own and thus require some type of intelligent design, thus implying an intelligent designer.

The concept of design reflecting an intelligent designer actually has a long history. It is not necessarily a biblical argument nor a Christian argument. In the 4th century BC the Greek Stoics posited such a theory. Christians can trace a hint of it back to St. Paul (Rom.

1: 19-20) where he claims that anyone can come to a knowledge of God through looking at nature. Catholic natural theology has long claimed that we can come to a realization of God through a study of His creation. In 1859, when Darwin wrote the *Origin of the Species*, the scientific community accepted a form of natural theology dating back to the 17th century thinkers such as John Ray and most importantly William Paley, who argued that the intricate design of a watch would logically imply a watchmaker, so too the universe.

Thus, when Darwin argued for an intricate universe, including human life, explained by an evolutionary process based on chance and natural selection, it created quite a shock in the scientific and religious communities. It was similar to the shock produced by Copernicus and Gallileo when they proposed that the earth was not the center of the universe. Darwin's shock waves are obviously still with us today.

The Advent of the Current Intelligent Design Debate

By the middle of the 20th century the vast majority of scientists accepted (and still do) the developing evolutionary theory as undoubtedly the best scientific explanation of the development of the universe, including human life. Then in 1996, William Behe, a Catholic molecular biologist at Lehigh University published a book entitled: *Darwin's Black Box: The Biochemical Challenge to Evolution*.

Briefly, Behe argued that at some point Darwin's evolutionary theory fails as an adequate explanation of the natural world, thus intelligent design (inferring an Intelligent Designer) must be inserted in the process to "make it work". He based this on scientific grounds. He argued that in order to explain the existence of certain "irreducibly complex molecular machines", science must posit the presence of intelligent design at some point in the evolutionary process. According to Behe, this must be the case, because Darwin's theory cannot explain and in fact excludes the possibility of these "irreducibly complex" molecular structures developing through a process of evolution.

Behe uses the example of a multi-piece mouse trap that simply cannot work without all its parts. Darwin had argued that existing, functioning systems could change over time, but Behe argues that without all the pieces in place these molecular "machines" (unknown to Darwin) could not function and thus could not evolve. They must come about in "one fell swoop" by the process of intelligent design. To quote Behe: "Since natural selection can only choose systems that are already working, then, if a biological system cannot be produced gradually, it would have to arise as an integrated unit, in one fell swoop, for natural selection to have anything to act on" (p.39)

Interestingly, Behe does not specify God as the "intelligent designer" in the process. And he does not suggest that the "Designer" miraculously intervenes directly. He says undetected secondary causes or laws of nature may yet explain the development of life, but these too, would be the result of design. On page 227-8 of his book he does make this "scientifically odd" statement: "Suppose that nearly four billion years ago the designer

made the first cell, already containing all of the irreducibly complex biochemical systems discussed here and many others.” He goes on to indicate that these biochemical systems (irreducibly complex?) may have been passed on in a dormant stage and “turned on” hundreds of millions of years later when needed, for example for blood clotting. For most geneticists this is pure scientific fantasy.

As a side note, there is great irony in the fact that many anti-evolutionists see Behe’s central argument as a direct attack on Darwin. However, for those few who have read Darwin’s *Origin of the Species* to its conclusion they would find in the final sentence of that book this remarkable statement, (quite similar to Behe?):

There is grandeur in this view of life, with its several powers, having been originally breathed into a few forms or into one; and that, whilst this planet has gone on cycling according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.

Moreover, Behe claims that intelligent design is not an outright denial of evolution. He acknowledges the validity of “micro-evolution”, such as when an insect species becomes resistant to a pesticide over generations and accepts the concept of common ancestry conceding the DNA matches between gorillas and human.

Unlike the “scientific creationists” who have adopted Behe, he has concluded that the world is several billion years old, that evolutionary biology can explain many of the patterns of life we find around us and he accepts much of the evidence of the fossil record.

Reactions to Behe’s Proposal

As we all aware, reactions to Behe’s proposal have been many and varied. The majority of scientists reject it as basically non-scientific, because it is not testable according to the scientific method and, furthermore, while Darwin and the neo-Darwinists have not yet made an absolute case for evolution, its is accepted as a valid theory, albeit still in process.

In fact, the biology department at Behe’s own Lehigh University has issued a statement stating that it is “unequivocal in its support of evolution” and that it believes “Intelligent Design has no basis in science”.

Religious leaders and scholars are sharply divided on the validity and/or place for Behe’s proposal within their theological schemes. And politicians and school boards have entered the fray voting for or against the inclusion of Behe’s proposal within the science curriculums of the public schools.

There is no space here to mention, much less evaluate, all the various reactions. For our purposes we will take a brief look as how various players, who have aligned themselves

in the above mentioned “four concepts of the relationship between science and religion”, have reacted. We will restrict ourselves to the concepts of Conflict and Contact.

Reactions within the Conflict Category

For the antagonists in the Conflict Category nothing has changed, because their flawed assumptions have not changed. Biblical Literalists still see the Genesis accounts as “real science” and evolution as a direct attack on the existence of God. They take no account of modern biblical studies, which see in the Genesis creation accounts a theological message, not a scientific treatise.

On their part, the Scientific Materialists agree with the Biblical Literalists that indeed evolution does eliminate the need for God to explain the universe. Evidence of this position can be seen in a quote from the Oxford zoologist Richard Dawkins in *Science* 227 -1997: “the universe we observe has precisely the properties we should expect if there is at bottom no design, no purpose, no evil, and no good, nothing but pointless indifference.”

Scientific Materialists also still hold to their two assumptions or “beliefs” that (1) the scientific method is the *only* guide to true knowledge and (2) matter and energy are the *only* fundamental realities in the universe. These two assumptions either confirm them in their atheism or lead them to that position. Given their assumptions, scientific materialists find no need for a designer, must less an intelligent designer that could be equated with God. For them, Behe’s proposal cannot be defended by the scientific method. Most scientists would agree with them. However, that conclusion does not necessarily rule out a God who creates without a “designing” intervention postulated by Behe.

As we noted above (see p. 5), neither of their assumptions is open to verification by the scientific method! The first assumption is an epistemological statement (how do we know) and the second is a metaphysical statement (concerning the structure of reality) and neither are within the realm of science.

Of course, for fundamentalists and some evangelicals Behe’s idea of intelligent design implies an Intelligent Designer whom they would immediately identify with God. Behe’s claim concerning the necessary advent of complex molecular “machines” in “one fell swoop” creates an important role for God in explaining the universe and especially in explaining the advent of life and attacking the fundamental concept of natural selection identified with Darwin. Many, however, would reject Behe’s old earth view along with his concessions to the validity of much of the evolutionary process.

Fundamentalists start with their interpretation of the Bible and see Behe’s work as a helpful, but not necessary, validation of a central point of their faith-based view of the origins of the universe and human life - God designs the world. Some would reject Behe’s “old earth” conclusions and hold to an interpretation that the Earth was created on October 23, 4004 BC.

Reactions within the Contact Category

There are many theistic scientists and members of the religious community who do not embrace fundamentalism and are not anti-evolution. They are sometimes referred to as “theistic evolutionists”. They are critical of both fundamentalists and atheistic scientific materialists. They see no conflict between faith and reason. However, they are also critical of Behe on scientific grounds and critical of those who use Behe to advance their fundamentalist causes.

There are many such critics among Catholic scholars. For example, Behe is correctly criticized by fellow Catholic scientists like Kenneth Miller in *Finding Darwin's God* (Miller recently visited Manhattan) and by Behe's personal friend Denis Lamoureux in an article entitled: *A Black Box or a Black Hole*, published in the July 1999 issue of *The Canadian Catholic Review*.

To make a long story short, Lamoureux argues that the gap perceived by Behe in the evolutionary process is actually a gap in our scientific knowledge. To believe in Divine Providence does not require one to believe in Divine Intervention to fill the gaps in our knowledge. The old “God-of-the-gaps” is no longer necessary. Furthermore, to lay such stress on design threatens the reality of freedom and novelty that we experience in everyday life and which our concept of God demands.

Lamoureux also quotes a personal letter from his friend Behe (p.71-2), in which Behe admits that he is “agnostic ...about how the design was implemented”. “It could have been present in the initial conditions of the Big Bang”. Lamoureux sees this as a shift in Behe's thought toward a more standard evolutionary view with a striking similarity to that of Darwin's (see page 10).

In a book review of Behe's book, Kenneth Miller offers a severe scientific critique of Behe's notion that the irreducibly complex biochemical systems could have been placed in a single cell by “the designer” and only activated or “turned on” hundred of millions of years later as needed.

Another criticism by Miller is that once you introduce design into the process you need to posit design for every twist and turn in the evolutionary process. It may seem a simple and logical step to substitute design for blind chance, but when followed to its logical consequences the system falls of its own weight. A designer God must also be a rational God and it is literally impossible to impose rationality or any kind of rational design on what we know of the history of the development of the natural world.

The concept of an all powerful God with a “divine plan” for the universe also leaves us

with some difficult explanations in the face of evil. For example, what about the malfunction of genes that produce deformed children or sickle-cell anemia? Whose fault is it that these things happen? Is our designer God unable to correct such flaws in His design or if able, why does He allow them to take place? If our designer God can produce the “irreducibly complex” molecular basis for the evolutionary process (a la Behe), why the problem with the not-so-complex genetic flaw? The presence of evil in the world is certainly a profound mystery, and the positing of a designer God is no answer. (For a complete criticism consult Miller’s book - “Finding Darwin’s God”)

The major problem with the Intelligent Design position is its focus on order and design. This does not reflect life, which is also so obviously characterized by novelty and change. With a designer God we are back to a form of lifeless determinism, albeit divine determinism. This only magnifies the theological problem of evil and, given the facts of evolutionary history, raises the question of the “competence” of the designer of such a system with its blind alleys, struggle, pain and waste. *We do not have to hold on to the necessity of design to support our belief in the creator-God of the Bible.*

Conclusion

The mystery of God and the mystery of the universe will no doubt continue to unfold throughout human history. However, our God has given us the grace of faith to accept Him in his mystery and has also given us the grace of our human reason to explore the universe which He creates and sustains. For this we give thanks.