Overview of the Theological and Religious Interpretations of Evolution

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In the wake of the 150th anniversary of Darwin’s *The Origin of Species*, many philosophical and religious interpretations of evolution have arisen because of its implications for man and his position in the universe. It quickly becomes clear to any objective student of the evolution controversy that one’s position on evolution comprises two elements: a scientific theory, and a philosophical position or worldview. These two are usually mixed together rather indiscriminately, and the resulting mix is often held passionately and defended tenaciously as well as blindly. This is conducive neither to good science nor to clear philosophical and theological understanding. Unfortunately few are sufficiently interested in the truth to consider their own views or those of their opponents in an objective manner.

The major interpretations of evolution form a spectrum that goes from young-earth creationism on one side, through other forms of creationism, intelligent design, theistic evolution, and materialistic/atheistic interpretations on the other. When considering any interpretation of evolution, one must bear in mind several questions:

1. How much of the generally accepted Neo-Darwinian theory does the interpretation acknowledge?

2. What issues are the proponents of the interpretation most concerned about?

3. How does their interpretation resolve or mitigate these issues?

4. What are the strengths and weaknesses of the interpretation?

The positions can be summarized briefly as follows:

*Young-Earth Creationism*

This interpretation starts from the assumption that the Bible is literally true and all narratives in it must be so interpreted. This applies to the events in Genesis 1, so that the creation of the earth and the universe occurred in six twenty-four-hour earth days. Any science that deviates from this account either is completely wrong or represents a false interpretation of empirical
data. Since both science and Genesis are considered to be literally true, direct contradiction is possible on virtually all matters. The creationists feel that generally accepted science (geology, astronomy, evolutionary biology) contradicts Scripture in three important areas: (1) the time frame of creation, (2) the order of creation, and (3) the manner of creation. They believe that their own version of science better accords with the observable facts. While creationists agree that species can change over time, and that new species can arise, they believe that any such change can only be neutral or degrade the genomic information of the species. Upward change is not possible. This reinforces the need to assume direct creative action by God to establish the original “kinds.” However, creationists do agree that natural selection can work on populations to optimize them for a particular environment. They interpret this as God endowing his creatures with the capabilities that they need to thrive. Despite some serious problems with sciences such as geology, physics, and astronomy, young-earth creationism enjoys considerable support in the United States, Australia, and more recently the Muslim world, especially Turkey. Most (but not all) of its adherents have only passing acquaintance with the relevant disciplines. However, some of them are quite expert in key areas such as geology, astronomy, and biology.

Old-Earth Creationism

In contrast to young-earth creationism, old-earth creationism relaxes the assumption that the Bible must always be interpreted in a literal fashion. Thus it can accept that the earth is old, as astronomy, geology, and other sciences claim. Genesis 1 must be interpreted metaphorically. There are two basic approaches to the theological issues that Genesis presents—that is, to reconciling the Bible with scientifically established time scales. First is the “progressive creationism” theory, according to which each “day” of creation can correspond to a very long period, and the days may even overlap. The theological point is that each day corresponds to a specific aspect of God’s creative work. The key theological message is that divine action was required to cause the events narrated; random processes are not adequate. Time scales are unimportant for this message. But because divine creative action is needed, Darwinian evolution cannot be correct as an explanation for the history of life, or at least for most of it. The second old-earth creationist approach is the so-called gap theory, according to which there is a lengthy gap, perhaps billions of years, between Genesis 1:1 and Genesis 1:2. The gap theory argues that the earth became corrupted during that period, and had to be repaired by God as described by the six days of creation.

Intelligent Design

Intelligent design (ID) also rejects the notion that the Bible must be interpreted literally. But while accepting most of modern science, especially physical sciences such as astronomy and geology, it rejects some of the claims of Darwinian and Neo-Darwinian evolution. Specifically, it accepts historical evolution (the historical sequence of animals found in the fossil record) and agrees that common descent may also be correct. But what the intelligent design school questions is whether the type of transformation required by Darwinian evolution can occur at all, or within the time spans allotted; and it has sought to give theoretical justification for its claims and empirically testable methods to buttress them, including Behe’s “Irreduc-
ible Complexity” and Dembski’s “Design Filter.” This is, of course, argument on the direct observational level. Claims about the feasibility of the transformations required by the Darwinian and Neo-Darwinian theories are strictly scientific questions, but they have clear theological implications. If the transformations cannot occur as required by the Darwinian and Neo-Darwinian theories, then some external source must be required to bring them about. It is this conclusion that causes such consternation among proponents of Neo-Darwinism, because they realize all too well the extrascientific implications. The ID school thus acknowledges that matter is endowed with great power, but not all the power that Darwinism needs for a completely naturalistic explanation of the history of life. The ID school generally accepts the need for a multilevel interpretation of evolution, as something leading to a more profound view of creation, but stops short of accepting it as the “resolution” of the evolution science/religion crisis.4

Theistic Evolution

Theistic evolution accepts science at face value, and maintains that the scientist will never encounter any sort of “wall” blocking his progress, such as that claimed by the intelligent design camp. However, it argues that theologically this is not important, because the range of questions that science can meaningfully ask and try to answer is not coextensive with all of human knowledge and, in particular, does not even cover much of what we do in our daily life, especially with respect to intentions and morality. That is, there are many aspects of human experience and human knowledge that cannot even be meaningfully formulated in scientific terms. The fact that we even talk about science, knowledge, and truth indicates that there is philosophical knowledge that cannot fall within the scope of science. Therefore, contradictions between science and religion, properly understood, are illusory. In addition, theistic evolution generally maintains that any sort of continual direct creative action by God is unnecessary because matter was imbued, at its creation, with the power to engender life.

Rather than maintaining a direct challenge to empirical laws, theistic evolution argues that we must step back and look at human knowledge as a whole. That is, we must recognize its essentially hierarchical nature, with knowledge at the direct observational level forming only part of it. Thus, what the scientist finds is not the whole of reality or the whole explanation of reality. In other words, there are aspects of reality that are not accessible to science and, as mentioned above, not meaningfully describable in scientific terms. As Spanish philosopher Xavier Zubiri has argued, science is only one way, at the level of reason, to understand reality; others include art, music, poetry, and literature. All knowledge at the level of reason enables us to understand some aspect of reality, although none is our primary contact with reality.5

It is in this manner that theology has its meaning (and philosophy as well). So both theology and philosophy operate on a deeper level than the level of phenomenal appearances, the presumed realm of empirical science. For example, consider a theological doctrine such as divine creation of the universe. For the theistic evolution proponent, no theory about this contradicts science because science investigates only phenomena and not things such as creation ex nihilo. An interesting view of theistic evolution is based on the “two ladders,” Darwin’s ladder and Jacob’s ladder:

This image is meant to symbolize the ascending movement of evolu-
tion and the movement of the Creator Spirit coming down from God. These are two movements in two different directions, which offer something like an overall view only when both are seen together.⁶

We may note that a great deal of discussion today about the reconciliation of science and religion seeks to penetrate deeper into the problem, and thus to determine what the issues are at the most profound level. Inevitably, the issues turn out to be philosophical rather than scientific, so that the dispute, ultimately, is between philosophical (usually metaphysical) positions rather than scientific and religious positions.⁷ But this fact has not penetrated the popular consciousness and the popular press, which is still fixated on a science versus religion conflict. It does not seem to have penetrated the mind of most critics of religion, either, who seem quite content to believe that their philosophical positions are actually grounded in science.

*Front-loaded Naturalism*

This theory hearkens back at least to St. Gregory of Nyssa (c. 335–394), a theologian with Neo-Platonist inspiration who believed that the world was created by God in a single act, by means of seminal principles. This world developed or unfolded autonomously to yield the world that we now experience:⁸

all things were virtually in the first divine impulse for creation, existing as it were in a kind of spermatic potency, sent forth for the generation of all things. For individual things did not then exist actually.⁹

A similar idea appears in St. Augustine, who notes in connection with the creation account in Genesis 1,

there are no intervals of time in God’s working, although they are found in his works. Something is made earlier and later in accord with the intervals of time, and without these [intervals of time] there could not be a narrative account of what God made, although God could make these things without them.¹⁰

In its modern form, this view asserts that while things happen according to what science says, and evolution unfolded in the naturalistic way envisioned by Darwinists and Neo-Darwinists, in fact it was all preordained because of the laws governing matter. In effect, man was the inevitable product of the forces set in motion at the time of the Big Bang. This is in contradiction to a commonly held idea about the unfolding of life promoted by Stephen Jay Gould, among others,¹¹ according to which much of life’s development was accidental, and small shifts might have resulted in completely different life forms today. While the idea that God took a “hands off” approach may be reminiscent of Deism, in fact it has a much more theological flavor because of the fact that the emergence of man was essentially programmed in. It resonates with Eastern Christian thought in many ways, especially the importance of the notion of man’s deification through Christ, and indeed the deification of the whole of creation. This approach permits one to view evolution at the direct observational level while at the same time recognizing other, theological dimensions of it.
Agnostic Naturalism

Agnostic naturalism regards science as correct. In particular, it maintains that Darwinian and Neo-Darwinian explanations of the history of life are correct. It stops short of claiming that science exhausts human knowledge, but does not concede any truth to theology or validity to its claims. This position tends to shade into Deism. Its proponents have an uneasy feeling that science might not be the whole story, either with respect to knowledge or in ethical matters, but believe that religion, especially organized religion, has too many problems to be credible in any area, and that theological discussions are rather disconnected from reality and largely devoid of meaningful content.

Atheistic Naturalism

Atheistic naturalism assumes that all knowledge is scientific, or at least all knowledge that has any degree of certainty and therefore credibility. Though it concentrates on the direct observable level, it is ultimately based on the “unholy trinity” of naturalism, nominalism, and reductionism. In this view, which has a positivistic epistemology, all knowledge is on the same level, so any purported theological “knowledge” must be capable of being judged by empirical science, since that is the ultimate source of knowledge about the world. With respect to man, since Darwinian evolution can account for the history of life, it has eliminated the need for any divine creative action. Therefore man is not special in any way, and the stories in the Bible are either false or merely edifying tales. Indeed, the history of life could easily have been different, with entirely different creatures, had circumstances been different. In this view ethics or morality tends to assume some form of utilitarianism because it seems to accord with the code of “survival of the fittest” at the population level.

Below the Spectrum

The broad spectrum of theological interpretations of evolution suggests that a real understanding of them must begin with an examination of what lies below the surface. And there we find several levels of commitment. Each theological interpretation is built on a complex foundation that includes a particular scientific theory, a worldview, and a set of philosophical (and possibly theological) assumptions. The philosophical/theological assumptions are the deepest metaphysical and epistemological assumptions about the nature of reality and the means of knowing. These include, for example, the “unholy trinity,” and in some cases belief that the foundation of all knowledge is ultimately religious, such as the Bible. The scientific theory, of course, is the particular theory—most often Neo-Darwinism—chosen as the best explanation of observed facts. The overall view of reality and how it works is the “worldview” that forms the basis for most judgments by the person. And finally, the philosophical or theological interpretation is what puts evolution in the context of human knowledge and man’s position in the universe. Of course, there is some interaction between the worldview and the scientific theory, as well as between the scientific theory and the philosophical assumptions. But the main drivers are in the sense indicated: philosophical assumptions about reality and knowledge ultimately drive science by restricting what it is allowed to consider as real and what methods it is permitted to employ. This was driven home in the twentieth century by the controversies over interpretation of
quantum mechanics (Copenhagen School v. Einstein, et al.). Moreover, the reality that science imparts to us, however incomplete, naturally shapes our worldview to a greater or lesser degree.

These underlying commitments themselves involve fairly distinct elements or levels: (1) the direct observational level, (2) what may be termed the “metaphysical level,” and (3) the “epistemological level.” In reality, all interpretations are grounded at all three levels, because it is impossible to have empirical knowledge and talk about it without doing so. So the question really is what assumptions each interpretation requires at each level.

The direct observational level concerns the directly observable facts about nature and the various theories advanced to explain them. This is the level of most day-to-day experience, and also the level at which empirical science operates. Worldviews also operate at this level. Much of the Bible’s narrative also appears at this level—the historical books, the Gospels, and the Acts of the Apostles, for example. But much of what is said in those books deals with matters that are not at the direct observational level.

With respect to philosophical and theological assumptions, there are two components: the epistemological level concerns questions of the scope of science and scientific knowledge, how we know in science, and how certain that knowledge is (or can be). As noted above, theistic evolutionists generally start by pointing out certain questions that cannot be meaningfully formulated in scientific language; this is a reflection of the fact that knowledge exists on multiple levels.

The metaphysical level deals with questions about the nature of reality (what is real) and the degree to which our experience at the direct observational level tells us about reality, especially reality beyond that experience. One question of great interest is the potency of matter as created, and specifically whether matter was created with the ability or potency to engender life, so that life is just as natural a phenomenon as gravity, for example. In that case, evolutionary processes are an expression of divine will, as in Genesis 1: “Then God said, ‘Let the land produce vegetation: seed-bearing plants and trees on the land that bear fruit with seed in it, according to their various kinds.’” Other metaphysical questions directly related to the interpretation of evolution include creation ex nihilo versus creation from existing matter (often confused), and creatio continuo, continuous creation—that is, the need for God to sustain things in existence. Questions about the meaning of events, the nature of morality and ethics, the significance of transcendentals such as beauty and truth also have their locus here. The commitments made here can directly bind acceptable scientific theories, as is clear in the case of the creationists, but applies to other schools of evolution interpretation as well.

What is interesting about the various interpretations of evolution, and the spectrum they form, is that the extremes (creationism and atheistic naturalism) share many ideas in common despite their diametrically opposite views. In particular, they both accept the idea that knowledge is “flat” in the sense that both discuss matters only at the direct observational level; that is, that the Bible (and theology in general) and science operate on the same level—the only level of knowledge that they recognize, at least explicitly. (Of course, both require assumptions at other levels, but this is usually conveniently ignored.) Thus contradictions are possible, and for both sides occur routinely. This inevitably entails a squaring-off and a fight to the death, which is where they remain locked to this day. There is little chance that either will prevail with its opponents, and so
many who reject the more extreme claims of these two positions look elsewhere for a better understanding of the controversy and, in particular, seek a better theological interpretation of evolution. The fact that the extremes share a common idea also suggests that this idea bears rather close scrutiny.

It should not be assumed, however, that just because knowledge occurs at multiple levels, contradictions between theological and scientific knowledge can always be avoided. This remains a potentially serious problem for any type of theistic evolution that does not completely disconnect the world of ordinary experience from theology. To take a simple example, the resurrection of Jesus is something that occurred (or did not occur) in a particular time, at a particular place—that is, on the direct observational level. It is simultaneously an empirical and a theological fact (for Christians). Likewise the miracles associated with Moses and the Pharaoh, the crossing of the Red Sea, Joshua and Jericho, and so on are all empirical and theological facts. Considered just as facts at the direct observational level, they would be incompatible with a strictly materialistic interpretation of science and knowledge, since miracles or other direct divine interventions make no sense under that interpretation. On the other hand, if these things really happened, they would instantly refute the entire worldview and philosophical underpinning of the atheist school—and proponents of that school are acutely aware of this. Such potentially explosive issues are what make the evolution controversy so interesting even if one is a theistic evolutionist: factual issues that deal with observable events with the capability of annihilating not just an interpretation but a whole worldview and its underlying philosophy (and perhaps theology).

Furthermore—and fortunately—at the direct observational level any denial of the scope of science or a specific theory has immediate observational consequences. When the creationists affirm that the earth is less than ten thousand years old, this has directly observable consequences that imply the possibility of empirical tests. Or to deny, as the intelligent design camp does, that a certain structure or process can arise by a natural process is to make a claim which can be examined empirically with the accepted methods of science. (To assert that it can, of course, also makes an empirically testable claim—something frequently ignored or evaded by those who advocate Neo-Darwinism.) Similarly, to deny that energy incident on a system is sufficient to account for its observed entropy is also to make a directly verifiable claim. If verified, any denial claim would become part of science itself, albeit one which reveals a limitation of great import. In this sense, the denial of the unrestricted scope of science at the direct observational level is tantamount to modifying—refining perhaps—a scientific theory or proposing a new, improved version of it. This is not the same as wholesale rejection of one or more branches of science as creationism does, only a refinement of them. Denial of the scope of evolutionary biology in this manner thus reduces the need for theistic interpretations of it. Hence the intelligent design camp has less need of any type of theistic evolution, because it claims that evolution cannot account for all observed facts, and so there is less to be reconciled than for those who accept evolution at face value. In other words, because there are in fact limits to what science can explain, some type of interventionist explanation is required—though this is an extra-scientific inference from the theory, not a scientific position of it. Nonetheless this does not eliminate the need for theistic interpretation. The history of life over one billion years has enough curious and majestic features that it surely calls for some kind
of theological interpretation even if purely naturalistic processes are unable to fully account for that history.

At the deeper levels, the metaphysical and epistemological, the situation is quite different, because the claims made on those principles are not subject to direct experimental test. For example, one cannot directly test an assertion such as “Only material bodies are real” or “There are no abstract entities.” Metaphysical claims in general are very problematic with respect to direct verification. For example, if I say that dreams are only physico-chemical processes, I have made a metaphysical claim about the reality of dreams, but not one which can be verified in any easy manner, if at all. In fact, one can argue that I have made a very confused and bizarre claim that mixes aspects of completely different levels of reality. Claims about parallel universes, and even some aspects of string theory, fall into the same category. One can combine assumptions at the philosophical level with scientific theories in order to make inferences—extrapolations actually—about what is real. Worldviews often arise in this manner, and are staunchly defended as if they are based entirely on science. Often such mixes lead to very confused positions, such as the belief that events such as the Big Bang correspond to creation ex nihilo, or that science can “disprove” religion (or philosophy).

How do these levels, and the assumptions made at each level, affect the philosophical and theological interpretations of evolution? This is a crucial question, because many who advocate a particular interpretation are unaware of the assumptions that really underlie it.

Haunting much of the debate about evolution, especially from the side of those who reject religion on account of evolution, is the “unholy trinity” of naturalism, nominalism, and reductionism. Reductionism, in its most radical form, is the theory (or belief) that all scientific knowledge can ultimately be reduced to basic physics. Thus, biology reduces to chemistry, and chemistry to physics of atoms of molecules, and these to particle physics . . . and this reduction includes human consciousness.

Nominalism is the theory (or belief) that only concrete things exist; abstract entities such as species do not. Nominalistic definitions of concepts such as “species” are often deemed essential to evolutionary biology. Though appealing (to some) at first glance, nominalism quickly leads to nasty problems, such as the fact the most ordinary discourse either becomes meaningless or means something quite different from what the speaker believes. A statement such as “Beethoven’s Ninth is a great symphony” has abstract entities for both its subject (concretely there are only performances of the symphony) and its predicate, “symphony.” Mathematics lives and breathes abstract entities.

Naturalism is the third leg of the unholy trinity, and perhaps the most relevant one for philosophical and theological interpretations of evolution. In brief, naturalism is the theory (or belief) that only natural forces and entities make up the world; in its extreme form the implication of naturalism is that, since science alone is competent to examine these things, there is no nonscientific knowledge of the world, or any nonscientific knowledge at all, for that matter, and no entities that science cannot examine. This is metaphysical naturalism. The milder form of naturalism, methodological naturalism, states only that science must restrict itself to explanations utilizing “natural” laws, “natural” theories, and “natural” entities, where “natural” refers more or less to what is publicly observable. Unfortunately naturalism is rather more difficult to pin down than it may appear at first sight. While many speak glibly about it and about the need for science to be “naturalistic,” few have ventured
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to explain just what it is; typical are comments such as:

If there is one rule, one criterion that makes an idea scientific, it is that it must invoke naturalistic explanations for phenomena, and those explanations must be testable solely by the criteria of our five senses.19

As I have discussed elsewhere,20 naturalism is based on two key notions: the canon of science and a scientific method. The canon of science is an inventory of the things that are acceptable for use in scientific explanations—that is, are real in a scientific sense, and real for the purposes of science.21 “Scientific method” refers to the set of procedures and explanatory methods allowed in scientific work. If one makes the philosophical postulation that the canon of science is coextensive with the canon of reality, then one steers toward metaphysical naturalism. This, of course, directly influences one’s interpretation of evolution. On the other hand, if one assumes that the canon of science is a subset of the canon of reality, one will likely steer toward a theistic interpretation of evolution.

Metaphysical naturalism is in fact an excellent gauge of the ideological nature of many scientific controversies, such as that over evolution. This is due to the fact that metaphysical naturalism tends to be associated with a particular attitude, namely, “I know what is real, so the facts are irrelevant.” The following remarks are typical:

Even if all the data point to an intelligent designer, such an hypothesis is excluded from science because it is not naturalistic [italics added].22

The ideological (nonobjective) nature of this remark is immediately obvious if we reword it to have a creationist flavor:

Even if all the data point to an old earth, such an hypothesis is excluded from creation science because it is not biblical.

In other words, it does not matter what evidence may be adduced, we won’t change our mind anyway. The reader is left to ponder the question of whether science is a private bailiwick where any rules can be made, or a public search for truth based on empirical observations, wherever it may lead.

Those who accept metaphysical naturalism generally reject any form of religion as superfluous, since they believe that Neo-Darwinian evolution can explain all life, and physics all of biology. Typical of their comments is this:

Although many details remain to be worked out, it is already evident that all the objective phenomena of the history of life can be explained by purely naturalistic or, in a proper sense of the sometimes abused word, materialistic factors. They are readily explicable on the basis of differential reproduction in populations [natural selection], and the mainly random interplay of the known processes of heredity [random mutations]. Therefore, man is the result of a purposeless and natural process that did not have him in mind.23

By Ockham’s razor, all other explanations, especially theistic ones, can be discarded as explanations of reality, though they perhaps once served some psychological purpose. Jon Haught comments:

In an unfriendly cosmos, religion kept our ancestors from having to look into the abyss of the world’s impersonality. By constructing mythic visions of eternal cosmic order, reli-
hizons provided illusory but effective shields against the terrors of existence. And by favoring our species with the fictitious phantasm of a purposeful universe, religions gave our human predecessors a reason to keep on living, to bear offspring and thus keep their genes from perishing. . . . The “biology of religion,” while still in its infancy, has begun to gather momentum in academia. It has been advocated in one form or another by such authorities as classicist Walter Burkert, psychologist Robert Hinde, philosopher Daniel Dennett, anthropologist Pascal Boyer, linguistics expert Steven Pinker, philosopher of religion Loyal Rue, and many others.24

Those who seek reconciliation between science and religion in this area through theistic evolution generally reject metaphysical naturalism (and the other extreme doctrines in the unholy trinity) in favor of a milder version. Thus metaphysical naturalism yields to methodological naturalism, and reductionism has hard limits in the sense that category mistakes, as they are called, are not permitted. That is, certain types of “reduction” make no sense. Nominalism is often rejected outright, or given a very limited berth. This point may be clarified by an example similar to that used by Professor Haught in his lecture at the 2007 Metanexus conference. If we have a kettle of water boiling on a stove, we can ask, “Why is the water boiling?” The question can be answered at several levels:

1. It is boiling because of the heat transfer from the fire to the water via the metal forming the bottom of the kettle. This heat transfer takes place due to molecular movement.

2. It is boiling because I put the kettle of water on the stove and turned the stove on.

3. It is boiling because I want to drink a cup of tea.

Those who accept the unholy trinity argue that the latter two explanations are not really important because they too can be reduced to atomic or molecular processes in the brain and body, leading to the indicated behavior, whether physical or verbal. Those who advocate theistic evolution, such as Haught, respond that the statements cannot be reduced to quantum physics because questions involving human intentionality cannot be meaningfully expressed in that language. Moreover, such reductions are never actually carried out, and barely sketched as a project. Open to debate is the epistemological problem of whether it is possible to define truth and knowledge in a consistent fashion under the philosophical assumptions of the unholy trinity. As Haught states:

there is a blatant contradiction between an exclusively selectionist explanation of mind, on the one hand, and the implicit trust you place in your own mind’s capacity to arrive at the naked truth, on the other. Clearly, in asking me to accept the truth of evolutionary materialism’s selectionist explanation of human intelligence, you have tacitly introduced something extraneous to your pure Darwinism.25

This leads directly to the question of what philosophical assumptions the conduct of science actually requires. That problem is well beyond the scope of this paper, but some discussion of it in the context of the unholy trinity can be found in the references.26
Rather than delve further into the philosophical issues, interesting though they are, I believe that constructive engagement is appropriate for all concerned with respect to the issues raised by the existence of the spectrum of evolution interpretations. So here I would like to propose a series of questions, the honest answers to which may help those of good will to understand better all interpretations of evolution, and perhaps venture closer to reconciliation. It must always be recognized that the highly polemical nature of the evolution controversy and the extrascientific stakes dim the prospects for agreement in the foreseeable future. As Francis Bacon noted long ago:

The human understanding when it has once adopted an opinion (either as being the received opinion or as being agreeable to itself) draws all things else to support and agree with it. And though there be a greater number and weight of instances to be found on the other side, yet these it either neglects and despises, or else by some distinction sets aside and rejects; in order that by this great and pernicious predetermination the authority of its former conclusions may remain inviolate.27

Nonetheless, few can deny the importance of the following questions and their answers:

1. Can there be any knowledge outside of science? Obviously this responds to the question of whether we can intelligently talk about interpretations of evolution, the unholy trinity, and similar matters in a meaningful way without already conceding that science is only a subset of human knowledge.

2. Can the same “fact” have meaning at different levels? There are many examples: Someone falls off of a building. Was it an accident, murder, or suicide? Life arose from matter. Is it just material forces at work, or an illustration of God’s creative power? What of our perceived need for stewardship? As Cristoph Schönborn asks:

3. Is there any reality to the moral life? While this question might seem surprising, in fact Kant based a key element of his philosophy on what he took as the superior knowledge we have of certain aspects of reality through morality.

4. Is there ever any connection between “is” and “ought”? Given Hume’s famous analysis, this may be surprising, perhaps, but consider the following from Schönborn:

If everything is merely the product of chance and necessity, no counsel, no positive suggestion, can stem from creation, nor does it have any law of its own. If, however, it has its own being, a being intended by the Creator, then—and only then—can there also be a responsibility toward it. This “responsibility for creation” only exists if an imperative is directed to us from the existence of creation.29

5. Can natural processes explain all of life? This question is directed at the sufficiency of Darwinian-type theories to explain the history of life. This is a key question at the direct observational level.
6. Is the earth 4.5 billion years old? Obviously this rules out any type of young-earth creationism.

7. Is the unholy trinity a viable philosophy? If nominalism, naturalism, or reductionism fails, the atheist interpretation of evolution is dealt a mortal blow.

8. Was nature endowed, at its creation, with the ability to engender life and cause its development over time? Created being has many potentials that are generally accepted (the formation of rocks, oceans, planets, stars, etc.); does it also have the potential to create life and cause it to develop by the mechanisms proposed by Darwinian theories? That is, can we say that life is the inevitable outcome of matter as created?

9. Is belief in the adequacy of Darwinian theory necessary for one to accept theistic evolution as a viable interpretation of nature as observed? That is, to what extent is theistic evolution independent of any particular scientific theory, and merely a position on the nature of theological and scientific knowledge?

10. Is the Cartesian dichotomy of res cogitans and res extensa, which has become such a deep-seated part of Western thought, viable or useful for understanding nature and our relationship with it? Descartes’s idea has become, in many ways, a proxy for the spiritual versus material conflict in our world. Undoubtedly it has roots in spiritual writing, and many biblical passages can be interpreted to support a dualistic view of reality. Zubiri believes that it is fundamentally flawed, as revealed by our very knowledge of God:

God is not a personal reality beyond things, but is personally present in them, formally constituting their reality. Because of this He is constitutively accessible in real things themselves. Never, not even in the most sublime access of the great mystics, is God accessed without things or outside of them. Real things are the personal presence of God. And precisely because of this, He is constitutively accessible. God is accessible in and through the world.

To what extent has this notion of absolute separation affected our view of evolution and science? Most likely, too much.

By way of conclusion we may observe that a broad spectrum of philosophical and theological interpretations exists, ranging from creationism to atheistic naturalism. All of these interpretations are built upon a worldview and a particular scientific theory of evolution, and these in turn rest upon a set of philosophical assumptions concerning epistemology and metaphysics. Thus all interpretations of evolution make assumptions about the levels at which human knowledge exists. There is no science without philosophical assumptions, especially about the canon of reality and the scientific method. Of particular interest is the fact that some interpretations of evolution ignore (or pretend to ignore) the philosophical, concentrating on a favored scientific theory and worldview instead, both of which operate primarily at the level of direct observation. If one views all knowledge as being at that level, then collisions between theology and science are inevitable, especially in light of the fact that the Bible and other religious texts are not and were never intended as science texts. Such conflicts or contradictions between theology and science have led creationists to reject many scientific conclusions and indeed entire theories, and atheistic naturalists to reject the possibility of theological knowledge. A better understanding of evolution comes from understanding the assumptions made at the lowest level. Some may choose to moderate or change their position when they recognize the assumptions they are making. Much rejec-
tion of religion comes from reliance on the unholy trinity of metaphysical naturalism, nominalism, and reductionism.

Today it is easy to fall into the scientific worldview, immersed as we are in the products of science and the scientific way of thinking. Then one views everything in scientific, materialistic terms, and looks at all phenomena as manifestations of some scientific law or other. But ultimately the insufficiency of this outlook begins to dawn. One perceives—however dimly—that the gurus, the monks, those who have retreated from society—are right: one needs to have quiet and stillness and listen to the voice of nature and creation, rather than always seeking to understand and manipulate it.

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