
Pro Rege

Volume 36 | Number 4

Article 1

June 2008

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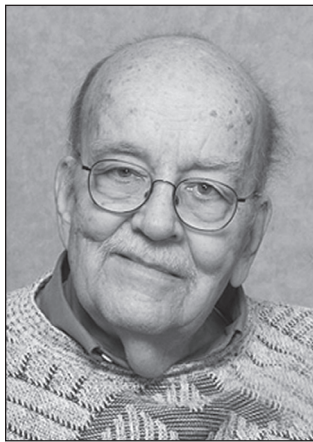
Maatman, Russell W. (2008) "Proposal: Two Problems, a Single Solution," *Pro Rege*: Vol. 36: No. 4, 1 - 12.
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A quarterly faculty publication of
Dordt College, Sioux Center, Iowa

A Proposal: Two Problems, a Single Solution



by Russell Maatman

When I came to Dordt in 1963, two problems particularly interested Dordt faculty and other Christian academics: first, how Christian colleges should deal with data from the natural sciences that seem to contradict the Bible (Most perceived contradictions were related to the question of biological evolution.); second, whether there is a Christian way to teach the various academic disciplines. Simplistic answers to both questions were available. The first question evoked two responses: (1) conclusions in the natural sciences

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can be verified in various ways, and if conclusions are perceived to conflict with the Bible, the conflict is only a perception based on too literal an interpretation of the Bible; or (2) conclusions in the natural sciences can be wrong. The second question was often answered by the claim that as long as a Christian teaches well, the result is Christian teaching. During the last half century, Dordt's faculty members were not satisfied with those answers. A Reformed understanding was called for. Aided by interaction with other faculty members, I developed my ideas of a Reformed approach to the findings of science.

In 1963, I knew the apparent contradictions between conclusions in the natural sciences and the Bible, and I knew that there had to be a uniquely Christian approach to the disciplines. In my first years at Dordt, I gave much more attention to the first problem than to the second.

The Problem of Contradictions

My approach, along with that of many other Christians, was to look carefully at the apparent contradictions between the conclusions in the natural sciences and the Scripture and remove them, one by one. In the 1960s, Dordt held formal and informal discussions about these apparent contradictions. Several of the subsequent ideas appeared in my book *The Bible, Natural Science, and Evolution* (Grand Rapids, MI: Reformed Fellowship, 1970). As the discussions continued, work in the natural sciences only added to the list of contradictions. The anti-evolutionists found more work to do to

remove the contradictions.

Concerning human evolution, one possible contradiction existed. Natural scientists continued to find evidence suggesting that beings, hominids, lived a very long time ago and were human-like in structure and behavior. The existence of these ancient beings seemed to contradict the biblical account of the origin of humans.

The two following lists present a sampling of the fossil and biochemical evidence suggesting that hominids lived tens of thousands to millions of years ago.¹ The first list consists of only two items taken from a much longer list by Pattle Pun, Associate Professor of Biology at Wheaton College:

- Fossils of 30,000-150,000 years ago were buried with elaborate rites; one, which had undergone elaborate arm surgery, was buried on a blanket with flowers.
- One-million-year-old fossils, which are believed by some to be pre-human, have been found.²

The second list, from geologist Glenn Morton, consists of fossil evidence and biochemical evidence. The fossil evidence is as follows:

- A being who lived 11,500 years ago and whose skull was found in Brazil is similar to that of a modern Australian aborigine, proving the ability to sail great distances at that time.
- Neanderthals produced sophisticated artwork 32,000-35,000 years ago.
- Head-bindings for “beauty” were carried out 50,000 years ago.
- Hand axes were manufactured 100,000 years ago.
- Stone tools were transported 200,000 years ago.
- Between 233,000 and 800,000 years ago, *Homo erectus* modified a stone to make it look like a female figure.
- The earliest wooden plank with polish existed at least 240,000 years ago.
- Idols existed 300,000 years ago.
- Between 350,000 and 424,000 years ago, *Homo erectus* built a village with campsites,

shelters, hearths, workshops, paved area, small tools, and engraved sets of lines, indicating abstract thinking.

- Religious altars existed 400,000 years ago.
- “Industries” existed in northern Spain 400,000 years ago.
- The earliest ocean crossing occurred 780,000 years ago.
- At some sites 1.5 million years ago, hominids used fire.
- Woodworking was carried out 1.5 million years ago.
- Art existed 1.6 million years ago.
- Huts were built 1.8 million years ago.
- A tool factory existed 2.34 million years ago.
- Bones had been cut 2.5 million years ago and broken for a hominid, apparently a tool-user.
- Australopithecines of 2.6 million years ago could plan days ahead, as is suggested by the fact that they could butcher in places where they had not made the butchering tools and then later return the tools.

The biochemical evidence is as follows:

- Some pseudogenes (certain parts of DNA) are common to animals and man.
- Hominids of 200,000 to 400,000 years ago have been claimed, by analysis of a certain kind of DNA, to be related to us.
- Hominids of 400,000 years ago have been claimed, by analysis of hemoglobin data, to be related to us.³

How valid is this evidence? This evidence, only a sampling, is good enough for us to take seriously.

Some Christians have solved the problem of contradictions by making one of the following claims: (a) all humans have descended from Adam and Eve, but Adam and Eve descended from other beings, pre-Adamites; (b) all humans have descended from a mixture, Adam and Eve plus contemporary hominids; or (c) Adam and Eve were not real persons. In other words, in some way, animals are the ancestors of at least some people. For example, Francis S. Collins, Director of the Human Genome Project in the National Institute for Health, is a Christian who accepts human evo-

lution: “From my perspective as a scientist working on the genome, the evidence in favor of evolution is overwhelming”; he refers to “the founder population from which we are all descended.”²⁴ It seems, however, that a new approach is called for.

A few points must be made before we take a new approach. First, some of the beings represented by the fossils referred to above might have been descendants of Adam and Eve.

My approach, along with that of many other Christians, was to look carefully at the apparent contradictions between the conclusions in the natural sciences and the Scripture and remove them, one by one.

Second, we should be able to claim that other ancient beings did not descend from Adam and Eve and therefore did not bear God’s image, in spite of their activities, even apparently religious activities. Should we who are Reformed limit God and claim that somehow we know that he did not create beings similar to human beings, who, however, did not possess his image? There is no way to point to a fossil and claim that it was created in the image of God. In fact, some modern animals might possess traits once thought to be uniquely human traits.

Third, we should be wary of claiming that hemoglobin, DNA, and other biological evidence prove that human beings and other primates have common ancestry. In a universe in which everything fits together, we should expect the genetic makeup and the hemoglobin of one being to be similar to that of another being having similar physical characteristics. No wonder modern humans and some animals are close genetically and

in other ways. (The fits-together concept is discussed further below.)

Fourth, the answer to the question “What is the difference between human beings and other created beings?” is actually obvious to everyone. When we look at our world, we observe that everything made by human beings—all aspects of human culture, such as art, literature, institutions, and even civilization itself—is uniquely human. No other created beings possess this kind of capacity to create.

As the evolutionistic mindset (evolutionism) continued to make progress in academia, it also influenced some developments outside the natural sciences. Consequently, President J.B. Hulst of Dordt challenged me, in the mid-1980s, to take another look at the problem. That project resulted in *The Impact of Evolutionary Theory: A Christian View*, published in 1993.⁵ This book looks at the effect of evolutionistic thinking in the natural sciences and other disciplines. A Reformed approach demands that both the new evidence in the natural sciences and biblical teaching be taken seriously. This article amplifies the solution given in that book and points the way to the solution of the second problem—the matter of approaching academic disciplines in a Christian way.

A key to the argument presented here is the understanding that there existed no contemporaries of Adam who bore the image of God. Consider what happened when Adam was alone:

So the man gave names to all the livestock, the birds of the air and all the beasts of the field. But for Adam no suitable helper was found. So the LORD God caused the man to fall into a deep sleep; and while he was sleeping, he took one of the man’s ribs and closed up the place with flesh. Then the LORD God made a woman from the rib he had taken out of the man, and he brought her to the man. The man said, “This is now bone of my bones and flesh of my flesh; she shall be called ‘woman,’ for she was taken out of man.” (Gen. 2:20-23) (All biblical quotations are taken from the New International Version.)

Adam did not find a suitable helper, although the fact of his looking around suggests that there

might have been some candidates. To us, it seems incredible that Adam would even have looked for a “suitable helper” in the animal world. In modern terms, his search would be like looking in a barn or a zoo for such a mate. Evidently, Adam was able to determine that no other being bore the image of God. Eve, who descended from Adam, did bear that image.

Some Christians, however, point to biblical passages that seem to suggest that early human beings did marry beings that were not descendants of Adam and Eve. For example, when Cain was banished because he had murdered Abel, he feared that he would be killed by “whoever finds me”:

Cain said to the LORD, “My punishment is more than I can bear. Today you are driving me from the land, and I will be hidden from your presence; I will be a restless wanderer on the earth, and whoever finds me will kill me.” But the LORD said to him, “Not so; if anyone kills Cain, he will suffer vengeance seven times over.” Then the LORD put a mark on Cain so that no one who found him would kill him. So Cain went out from the LORD’s presence and lived in the land of Nod, east of Eden. Cain lay with his wife, and she became pregnant and gave birth to Enoch. Cain was then building a city, and he named it after his son Enoch. (Gen. 4:13-17)

Who was it that Cain feared? The beings Cain feared *out there*, in the land of Cain’s banishment, could have been the kind of beings that Adam rejected when he could not find a “suitable helper,” in other words, beings that did not bear the image of God. If we accept even some of the fossil finds cited above, there were once beings that seemed much more like human beings than anything in the animal world today. Cain could indeed have feared such beings.

In the passage quoted, Cain’s wife is mentioned. Who was Cain’s wife? She bore the image of God and therefore was a descendant of Adam and Eve, possibly Cain’s sister. The idea of his marrying a sister might surprise us. However in the first generations of the human family, there would have been no genetic problem with marriage between close relatives.

Another problem cited by those who ques-

tion that all human beings were descendants of Adam and Eve is a passage mentioning the “sons of God”:

When men began to increase in number on the earth and daughters were born to them, the sons of God saw that the daughters of men were beautiful, and they married any of them they chose. (Gen. 6:1-2)

That the “sons of God” married the “daughters of men” has been suggested to mean that angelic beings married human beings. If such marriages had actually occurred, the descendants of these unions would have had angels among their ancestors. Rather, it seems that the “sons of God” were believing men who should, according to God’s commands, have married the “daughters of God,” or believing women. Although God told his covenant people not to marry unbelievers, many broke that law.

The over-all biblical picture is this: Adam and Eve were created in the image of God.⁶ Often it is claimed that the distinguishing characteristic between man and animals is that human beings possess souls while animals do not. However, using “image of God” for the subjects in this article seems more appropriate because the Bible links the phrase directly to the creation of human beings; the phrase suggests what human beings are like; and the phrase suggests what their behavior should be. Since Adam and Eve are the parents of the human race, being human means bearing the image of God, and bearing that image means being human.⁷ Because Adam and Eve fell into sin, the image that every human being bears is broken. Redemption by Christ, who is God, consists of restoring the broken image of God in his people.⁸

John Calvin tells us to use the Bible as spectacles to be able to understand the natural world. Calvin’s ideas become the starting point for Reformed scholarly work. The Bible provides the means to understand properly the discoveries in the natural sciences. Using the Bible as spectacles in the present case, we conclude that God did create beings that were similar to human beings but that did not bear God’s image. This line of reasoning, providing us with an understanding of who human beings are, differs radically from the pic-

ture presented by modern-day evolutionists.

Using the Bible as spectacles allows us to propose the following: The solution to the problem of an apparent contradiction between the biblical account of the origin of human beings and the fossil record lies in the fact that all human beings bear the image of God, while supposed hominids did not. The defining difference is bearing God's image, not structure and behavior.⁹

Three questions arise concerning the image of God in human beings. First, what is the image of God? The Bible presents some of the elements of this image. God's image in human beings includes "knowledge" (Col. 3:10), "righteousness," and "holiness" (Eph. 4:24). Many Christians have described specific consequences of the image of God in human beings. David Tyler (Manchester Metropolitan University, England), Secretary of the Biblical Creation Society, gives eight "dimensions" to the image of God in man: "morality" "personal relationships," "dominion," "creativity," "rationality," "sanctity of life," "aesthetic appreciation," and "speech."¹⁰ Other Christians suggest that human beings live in harmony with God to the extent that they can perceive that the parts of God's creation fit together. We not only discern but also depend upon order in creation. Taken together, all the elements of the image of God in human beings enable humans to form a human culture and even civilization itself, a capability no other living beings possess.

Second, why is it important to show that human beings are not related to animals? If, as we assume, human beings are related to animals, then humans become just another species. This position can lead to some version of affirmative action for the higher animals. According to some philosophers who take this position, a healthy animal is, under some conditions, more valuable than an unhealthy human being. In this line of thinking, infanticide becomes an option.¹¹ Humans have a special calling because they possess the image of God. Image-ing God means that humans do in a human way what God does in a divine way. As covenant partners, humans also respond to God. Adam and Eve broke but did not destroy the image of God in themselves when they sinned, or put themselves in the place of God. Redemption by

Christ means being made over into his likeness.

Third, if the image of God is not transmitted from generation to generation genetically, how then is it transmitted? How this occurs is a mystery, although we know that it happens. A relevant truth in Reformed teaching is that the tendency to sin appears in each generation. We do not claim that there are genetic reasons for this tendency to appear in each generation. But this tendency to sin is the brokenness of—the flaw in—the image of God in man. The flawed image appears in each generation.

Using the Bible as spectacles in the present case, we conclude that God did create beings that were similar to human beings but that did not bear God's image.

The Problem of a Christian Approach to the Disciplines

Discerning a Christian approach to the disciplines, which is very important in Dordt's history, is much more subtle than the problem of contradictions. But discerning such an approach is called for, just because being Reformed means believing that Christ is the Lord of all creation. Before 1963, this problem had not been so prominent in my thinking, but by the time I came to Dordt, I had become impressed with how well things *fit together* in the basic physical sciences—chemistry and physics. For example, from the Periodic Chart of the Elements, one of the most ordered summaries in all of natural science, virtually all chemical properties can be derived. Given other assumptions, one can make similar statements for phenomena normally associated with physics. These conclusions in chemistry and physics are emphasized in *The Unity in Creation*, published in 1978.¹² The major

point in *Unity* is that human beings can perceive that the parts of creation fit together because they bear the image of God. Given a Reformed starting point, one would expect that God's works would fit together. To a certain extent, the image of God exists in harmony with God.

Unity was written for readers who were becoming familiar with the physical sciences at the beginning college level. But chemists and physicists, working at a very sophisticated level, had been convinced for decades that the parts of the physical world fit together. For example, Fred Hoyle, a prominent atheistic astronomer, made a discovery concerning the energy levels in the nuclei of carbon and oxygen. He discovered that had there been only a slight difference in one of those levels, life would not exist. Those levels are exactly what they need to be. They had been "fine-tuned." Hoyle said, in what must be one of the most famous statements by an atheistic natural scientist during the twentieth century, "[a] common sense interpretation of the facts suggests that a superintellect has monkeyed with physics..."¹³

In the twentieth century, the fine-tuning concept became extremely important. It was pointed out that the so-called fundamental constants of the physical world had been fine-tuned. Examples of the fundamental constants are the speed of light and the strength of gravitational and electrical attractions. The fine-tuning of these constants means that if any of the constants had a slightly different value, the physical world (according to calculations) would not exist. Thus, the universe is the ultimate example of precision fitting. A person convinced that the physical world is *all there is*—there is a universe but not a creation—could conceivably write a book with the title, *The Unity in the Universe*, without ever referring to a harmony between God's image and his works.

Perhaps the solutions proposed here to the two problems rest on the same underlying principle. A proposed solution to the first problem—a contradiction between the Bible and conclusions in the natural sciences concerning the origin of human beings—is that all human beings and only human beings bear the image of God, while ancient beings do not bear that image if they are not descendants of Adam and Eve. If the central fact

about human beings is their bearing the image of God—the image which puts them at the head of God's creation and which is the reason for their making the components of human culture—then it is the image of God that enables them to investigate all of creation, including the components of human culture. Therefore, it is the image of God in human beings that makes scholarly work possible.¹⁴

A proposed solution to the second problem—how to develop a Christian approach to the disciplines—lies in the fact that all human beings bear the image of God. That image-bearing quality enables humans to investigate God's creation and the components of human culture.

A Christian approach to the disciplines is not possible without a Christian approach to all of life. What characterizes such an approach at the personal level? A person who bears God's image has, to the extent that he is conscious of bearing that image, a legitimate reason for realizing self-worth. The frequently spoken words "You are somebody!" are truly meaningful if the reason for the words is that the individual bears God's image. To image God in human interaction means to exhibit love for human beings according to the biblical instructions that God has provided in great number. The Bible shows that this love for others is specifically related to the image-ness of others: "With the tongue we praise our Lord and Father, and with it we curse men, who have been made in God's likeness" (James 3:9).

As we recognize that human beings bear the image of God, how should we do our scholarly activity? We should begin with these biblical teachings: God created the world, including human beings, who bear his image. Because they bear that image, they have the ability to investigate creation, but since sin has broken the image, the investigation will be flawed. Even so, because human beings bear that image, they will be able to create in the human sense, in a small way mirroring divine creation. Their human creations will never be able to overcome the effects of sin. However, Christ has redeemed the world, and therefore all human activity, including scholarly investigation, should anticipate the ultimate effect of this redemption.

Scholarly activity, and therefore the academic

disciplines, usually rests on the bedrock of human logic. Secularists claim that for everyone, in all places and all times, the laws of human logic are the same: a syllogism is always a syllogism, and the law of non-contradiction always holds. They therefore insist that whatever rests on the laws of logic is neutral ground: it does not matter which religion one adheres to—Christian, Hindu, Muslim, or any other.

John Vander Stelt shows how this concept of *neutral ground* played a role in American thought. Influential American thinkers of the eighteenth century adopted Scottish “common sense philosophy.” Thomas Reid taught common sense philosophy to John Witherspoon at the University of Edinburgh, who came to North America in the late 1760s and became the president of Princeton College. Witherspoon’s importance lay in his teaching moral philosophy to Princeton students,

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who in turn helped shape American thinking for a very long time. The thinking of even some modern leaders can be traced to Witherspoon. Four principles summarize the basis of common sense philosophy: “the objective validity of sensory experience,” “belief in original instincts,” “intuitive awareness of the reality of sensed objects,” and “the immediate conviction of the rationality of common rational truths”; such a set of philosophical assumptions could provide a “neutral ground,” a starting point not dependent on

Christian commitment.¹⁵

Vander Stelt and other careful thinkers who disagree with the concept of neutral ground have said, “Not so fast.” For example, in discussing the concept of neutral ground, Roy Clouser points out that a proper definition of religion is required. Clouser argues that religion should not be defined by adherence to a liturgy, a behavior, or any other outward manifestation of belief. Religion in the ultimate sense is “religious belief”: belief in the existence of an entity whose existence does not depend upon the existence of “anything else”¹⁶ Christians believe in the uncreated Triune God, who created everything else that exists. Jews believe in the uncreated God of the Old Testament. Clouser showed that adherents of other religions, even though their belief is sometimes not in a specific god, believe in something that is ultimate, that exists independent of anything else that exists.

Thus, when secularists claim that the existence of logical laws is the same for everyone, they imply that those laws have an existence independent of anything else that exists. They are actually expressing their ultimate faith in those laws. They live their lives and do their scholarly work resting on that faith. However, the Triune God, Creator of all, does exist, and human beings do bear his image. This belief applies even to the laws of logic: We image-bearers are not to assume or even seem to assume that the laws of logic are uncreated. In fact, these laws do not necessarily have universal application. The laws that human beings formulate, such as the laws of logic, and the laws that humans deduce from observed phenomena, such as the law of gravity, are merely human formulations and not created laws. How these considerations impact the disciplines is a problem for Christian scholars. A human being, who bears the image of God, should not assume part of the time that he does not bear that image. Human laws do not have an existence independent of God’s creation. In fact, Christians take for granted that God did not create the heavens and the earth in the framework of pre-existing laws.¹⁷

Those who work in the disciplines exhibit their image-ness by standing in awe as they become aware of the magnificence of God’s creation. They

will adopt a posture of humility. They will assume that progress is possible using laws formulated by human beings. They will praise God when these laws correctly predict future discoveries. However, they will not be surprised when such laws do not correctly predict future discoveries. They will once again thank God for these *failures*, which often open up new dimensions of God's creation. So many new dimensions have appeared in recent centuries that the understanding we now have of creation bears almost no resemblance to the understanding people had a few centuries ago.

At the same time, scientists who know that they bear God's image realize that scientific progress and discoveries have become intimately associated with the brokenness of God's image: every corner of the disciplines shows evidence of sin. Not everything that is achievable is right in God's sight. Those who know that they bear God's image attempt to counteract the effect of scholarly projects that have harmed creation. In other words, as these image-bearers devise projects that will help people care for God's creation, their activities will be God-praising activities.

A few of the problem areas that remain in the disciplines, as they are usually analyzed and taught, should be discussed. For example, the central law in biology, buttressed by laws of chemistry and physics, is Darwinian evolution. Darwinian evolution postulates that all living beings have descended from a single living being ("common ancestry"). Chemicals present on the primordial earth interacting according to chemical and physical laws formed this single living being. The driving force for the origin of both the original living being and all subsequent life forms is natural selection by the "survival of the fittest." In the minds of evolutionists, the law of natural selection and the laws of biology, chemistry, and physics, all deduced by human beings, account for all life. Evolutionists recognize that laws of biology, chemistry, and physics can be replaced by better laws. At any one time, however, evolutionists do their work as if the currently accepted laws are ultimately dependable.

According to Neal C. Gillespie, in *Charles Darwin and the Problem of Creation*, the physical sciences were already the "positive" sciences be-

fore Darwin: "[P]ositivism signifies that attitude toward nature that became common among men of science and those whose intellectual lives were influenced by science in the nineteenth century, and which saw the purpose of science to be the discovery of laws which reflected the operation of purely natural or 'secondary' causes."¹⁸ Gillespie says that when Darwin formulated evolutionary theory, he made biology a positive science, thereby completing the task of making all of natural science positive.¹⁹ In other words, biological, chemical, and physical laws taken together in principle account for the existence of human beings and everything—living and non-living—that they observe.

Darwin and those who preceded him in the physical natural sciences accomplished two things. Their work led to (a) the postulation of a general theory of evolution and (b) a scientific reason for placing human beings on a pedestal.

The general theory of evolution (GTE) extends from the origin of all life, as described above, to all aspects of human behavior. The emphasis in GTE is to be put on *general*. No longer do scientists find it necessary to build up the evolutionary structure piece-by-piece: it is now to be assumed *a priori* that evolution accounts for life and human behavior. Any suggestion that some life has not evolved has been opposed vigorously. For example, any suggestion that human life has not evolved, even if the suggestion does not utilize a biblical argument (such as the biblical argument presented above), meets with intense disapproval. Nothing previously postulated to have evolved may be removed from the general scheme.

An example of this mindset is provided by the reaction to those who have postulated Intelligent Design (ID) theory.²⁰ Discussions of ID usually focus on aspects of non-human evolution. ID theorists claim to have proved that Darwinian evolution cannot account for certain biological structures. Much of the fire they have drawn centers on the word "intelligent," which suggests to many that the theory invokes the work of a supernatural being. But anyone who has followed the intense and extensive argument over ID in recent years would probably conclude that the objections would be almost as vigorous if no hint of a super-

natural being were made. Any idea which suggests that some life did not evolve must be prohibited from entering the academy: evolutionary theory must remain general.

In placing human beings on a pedestal, secularists put the central claim of the eighteenth century Enlightenment on a scientific basis: *Man is autonomous*. For example, the achievements of Isaac Newton in physics and astronomy late in the seventeenth century made it possible to predict the motions of the planets for thousands of years into the future. Such predictions showed, said philosophers, what man could do and that God was at most a deistic God, one who set the universe, a machine, into motion and then left it alone.²¹In the late twentieth century Robert John Russell reflected on developments in physics and astronomy. The solar system could last five billion years, according to Russell, and the universe 100 billion years or perhaps forever. Therefore, “[life] can continue for countless billions of years into the far future....If we do explore space and colonize the stars, as some envision, our role may indeed become that of the voice, the mind, even the spirit, of the universe.”²² Perhaps this statement is the ultimate example of putting man on a pedestal.

The late nineteenth and early twentieth centuries saw two opposite approaches to an understanding of how economics should function in human populations. One was an outgrowth of the evolutionary mindset, described above, which was associated with Charles Darwin and one of his contemporaries, Herbert Spencer. Economic relations in human populations could best be understood by using the principle of the survival of the fittest. There must be winners and losers. The “fittest,” or winners, become rich. Others, depending upon how fit they are, do less well. The least fit are the losers in society. The other understanding about how economics should function seemed to be the opposite. But this opposite position also incorporated the idea that human beings had evolved and that left to themselves, the fittest would prevail. Therefore, said proponents of this interpretation, government should intervene. It should make the playing field level, thereby preventing the strongest from crushing the weakest. Unfettered capi-

talism and socialism were manifestations of these two extremes. Other systems seem to be some combination of these two.²³

Other disciplines, such as sociology and psychology, have also been affected by the assumption of human evolution. For example, some leading psychology theorists claim that there is no alternative to evolutionary psychology. Evolutionistic approaches for these disciplines are inadequate. He who is conscious of bearing the image of God realizes that GTE is not consistent with what actually exists in God’s creation. GTE is a straightjacket: it does not allow for the existence of anything that cannot be fit into GTE.

A person conscious of bearing the image of God will not accept this straightjacket. After all, God surprises us. To allow for a world that admits elements that simply do not fit into any over-all scheme, especially a scheme like GTE, ignores God. In the face of such possibilities, researchers will stand in awe before God. They will be humble at the same time they realize that they have more freedom to investigate than does an evolutionist. This added freedom will enable them to discover things that the GTE enthusiasts, because of their

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prejudice, cannot find.

Putting man on a pedestal in the way that Darwinians and other futurists do is actually counterproductive. The Enlightenment—and later the Darwinian—view of an ever-improving human race, migrating (wandering?) for billions of years to other galaxies is hardly an optimistic view. Those who are conscious of bearing the image of God will joyfully look forward to Christ’s return, the redemption of creation, and the completion of their being made over into the likeness of Christ. Research in the disciplines, which are, after all, various ways of studying God’s creation and

human beings' responses to creation, should inspire hope, not visions of a dreary, almost endless future in the kind of world we live in now. Perhaps our hope will include hope that our work in this life will in some way continue when we have that perfect life with Christ, whose perfected image we will bear.

How should researchers, if they believe that human beings bear God's image, respond to the problems in the various disciplines? First, no procedure or law developed by human beings is to be a straightjacket. One example of what not to do is to use GTE to account for all aspects of human behavior. For example, some researchers have attempted to show that evolutionary theory accounts for human altruism.²⁴ This is stretching a theory meant to account for the development of new organs and new species. Such a stretch reduces selfless behavior to behavior brought about by physical causes. No longer is altruism God's gift to his image.

Second, researchers should recognize that some solutions already advanced are based on improper assumptions. In economics, for example, the winner/loser solutions described above rest on the assumption that human beings have evolved. Another solution, one that recognizes that all human beings bear God's image, is called for.

Third, researchers should avoid the assumption that each human being is born naturally good. The image of God that each human being bears has been broken. As a result, sin will be found throughout human endeavor. Several activities associated with materials used to obtain nuclear energy provide an example of making the wrong assumption about human goodness. Thus, developments in physics and engineering have led to the construction of nuclear reactors, nuclear weapons, and places to store used nuclear materials.²⁵ In all these cases, extreme measures have been taken to ensure safety. A requirement in all cases is that the nuclear materials be safe for a long time, perhaps for many centuries. One wonders what safety arrangements would be made if it were assumed that all the guardians of these nuclear materials in future generations will be naturally sinful, i.e., prone to cheat on the safety rules.

Fourth, researchers should anticipate in all

scholarly work that Christ's return will bring about a qualitative change in human affairs. Christ's redemption will bring about the consummation of human history, for it will bring about a new heaven and a new earth. We know very little about the future. However, it does seem likely that in some way the activities we carry out in human history will relate to our activities in sinless, eternal life with our Savior.

Conclusions

The defining difference between human beings and other forms of life is that human beings possess the image of God. Only human beings, by reason of their activities, have constructed human culture or human civilization. No activities of other living things have had similar consequences. It follows, then, that we are called to reflect consciously our image-ness in all of our activities, both those that are uniquely human, related to culture- and civilization-forming, and those that are not. A subset of the uniquely human activities, work in the scholarly disciplines, must therefore be guided by image-ing God, utilizing the special capabilities God has given us.

Our activities should not be divided into biblically guided and culturally guided activities. If it were possible to make such a division legitimately, we could maintain that some activities have no relation to the image of God in us, which is manifestly an incorrect conclusion. The Bible does not provide us with one body of knowledge while our scholarly activities provide us with another body of knowledge. It is not enough to adopt the two-bodies-of-knowledge model along with the claim that properly understood, there is no contradiction between biblical teaching and scholarly teaching. That claim is valid, of course, but only because the Bible provides spectacles that enable us to understand scholarly investigation.

To use the phrase "the Bible and science" suggests the two-bodies-of-knowledge model. Of course, this phrase is often used along with the recognition that the Bible provides the spectacles. However, our calling as God's people is to put the matter in proper perspective, not to separate the Bible from scholarly activity.

Endnotes

1. The discussion concerning contradictions is intended for those who accept the possibility that the earth is much older than a few thousand years. However, the main point of the article, the true nature of human beings and the consequences of having that true nature, is relevant regardless of the age of the earth.
2. Pattle P.T. Pun, *Evolution: Nature and Scripture in Conflict?* (Grand Rapids, Mich.: Zondervan Publishing House, 1982), 112-117.
3. Glenn Morton, "Reply to Tanner," *Perspectives on Science and Christian Faith* 50, no. 3 (September 1998): 233-234; "Planning Ahead: Requirement for Moral Accountability," *Perspectives on Science and Christian Faith* 51, no. 3 (September 1999): 176-180. I am indebted to Morton for providing by e-mail communication some of the items on this list.
4. Francis S. Collins, *Perspectives on Science and Christian Faith* 55, no. 3 (September 2003): 151-152.
5. Russell Maatman, *The Impact of Evolutionary Theory: A Christian View* (Sioux Center, Ia.: Dordt College Press, 1993).
6. "Let us make man in our image, in our likeness" (Gen. 1:26-27); "made him in the likeness of God" (Gen. 5:1); do not shed the blood of man, made "in the image of God" (Gen. 9:6); "conformed to the likeness of his Son" (Rom. 8:29); [in the resurrection] "so shall we bear the likeness of the man from heaven" (1 Cor. 15:49); we are "transformed into his likeness" (2 Cor. 3:18); renewed "in the image of its Creator" (Col. 3:10); and "we curse men...made in God's likeness." (James 3:9) In both the Old and New Testaments, "likeness" and "image" are equivalent in the passages cited.
7. "Adam named his wife Eve, because she would become the mother of all the living." (Gen. 3:20)
8. "For those God foreknew he also predestined to be conformed to the likeness of his Son, that he might be the firstborn among many brothers." (Rom. 8:29)
9. This is the position taken by Henri Blocher in his careful analysis of the opening chapters of Genesis: "For the Bible, man is neither angel nor beast, nor even a little of both; the prologue of Genesis defines him as a creature made *as the image of God*." Blocher devoted an entire chapter of his book to the meaning of "image of God." Henri Blocher, *In the Beginning: The Opening Chapters of Genesis*, trans. David G. Preston (Leicester: Inter-Varsity Press, 1984), 79. For a summary of his argument, see footnote 10, p. 289 of Ref. 6.
10. David Tyler, *Creation: Chance or Design* (Darlington, England: Evangelical Press, 2003), Chapter 4. No doubt these and other suggestions made by Christians do not exhaust the concept. But taken together, they do enable us to use the concept fruitfully.
11. See a discussion of the consequences of blurring the difference between species, involving the philosophical underpinnings of movements such as People for the Ethical Treatment of Animals (PETA) and Animal Liberation Front (ALF) in Ref. 6, pp. 254-60.
12. Russell Maatman, *The Unity in Creation* (Sioux Center, Ia: Dordt College Press, 1978).
13. Ibid, 45-46. A discussion of Hoyle and fine-tuning fundamental constants is discussed in Ref. 6, pp. 45-46.
14. For Christian answers to this problem, see four articles in *Pro Rege* 31, no. 4 (June 2003): Roy Clouser, "Is There a Christian View of Everything From Soup to Nuts?" pp. 1-10; John H. Kok, "Learning to Teach From Within a Christian Perspective," pp. 11-19; Calvin Jongsma and Hubert Krygsman, "The Educational Framework of Dordt College," pp. 20-25; Murat Tanyel, "We Have Heard It Said: Reflections on Christian Engineering Scholarship," pp. 26-31.
15. John C. Vander Stelt, *Philosophy & Scripture: A Study in Old Princeton and Westminster Theology* (Marlton, N.J.: Mack Publishing Co., 1978): 65-75.
16. Roy Clouser, *The Myth of Religious Neutrality* (Notre Dame, Ind.: University of Notre Dame Press, 1991), 18-19.
17. Interestingly, some modern physical discoveries concerning quanta of energy might, because they are counterintuitive, contradict human logic. George Johnson in *A Shortcut Through Time: The Path to the Quantum Computer* (New York, N.Y.: Alfred A. Knopf, 2003) pointed out that in ordinary computers a switch is either "on" or "off" while in a quantum computer a switch can be *both* on and off: "Defying all common sense, a single particle [here, a quantum of energy] can be in two places at the same time" (6). That this is so is proved by the fact that an extremely elementary quantum computer functioned as predicted (130-31). In addition, a photon, a quantum of light energy, has been observed to pass through two slits simultaneously (38-40).
18. Neal C. Gillespie, *Charles Darwin and the Problem of Creation* (Chicago, Ill.: The University of Chicago Press, 1979), 8.
19. Ibid, 155.
20. For ID theory see, for example, Michael J. Behe, *Darwin's Black Box: The Biochemical Challenge to Evolution* (New York, N.Y.: The Free Press, 1996) and William A. Dembski *The Design Inference* (New York, N.Y.: Cambridge University Press, 1998). Phillip E. Johnson, now the acknowledged leader of the ID movement, referred to the concept of design approvingly in *Darwin*

- on Trial* (Downers Grove, Ill.: InterVarsity Press, 1991) and *Reason in the Balance: The Case Against Naturalism in Science, Law, & Education* (Downers Grove, Ill.: InterVarsity Press, 1995), before Behe presented actual biological examples in *Black Box*.
21. The eighteenth century predictions of planetary motion were, however, slightly inaccurate and were known to be inaccurate. Not until the twentieth century, with the development of Einstein's General Theory of Relativity, was this inaccuracy removed.
 22. Robert John Russell, *Perspectives on Science and the Christian Faith* 42, no. 3 (September, 1990): 139-54, esp. p. 153.
 23. For a discussion of this problem in economics, see Ref. 6, pp. 233-38.
 24. For efforts to give an evolutionary explanation for altruism, see discussions in Ref. 6 on pp. 210, 217, and 256.
 25. The argument presented here does not include the obvious problems associated with nuclear warfare, terrorists, and "rouge states."