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**TOWARD A SEVENTH-DAY ADVENTIST MODEL FOR
RELATING SCIENCE AND SCRIPTURE
WITH SPECIAL REFERENCE TO ORIGINS**

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The Background

Christians differ in the way that they relate science and Scripture. This matter is nowhere more obvious than in regard to the controversial question of origins. Our presuppositions about how Scripture and science relate will influence how we approach the data and the texts, the outcome of our discussion and our conclusions. Differences among Christians with respect to philosophy of origins have a fundamental basis in the perceived relationship between science and Scripture.

An analysis of four previously classified models for the relationship between science and Scripture in the context of origins reveals that none comfortably fit Seventh-day Adventists or adequately describe the way we approach Scripture or integrate Scripture and science. In this paper I review these four models as described by Wright (1989) and then propose a fifth model which I believe more adequately describes how Seventh-day Adventists, particularly mainstream, science-educated Seventh-day Adventists can comfortably relate science and Scripture. The relationship among these five models is shown diagrammatically as an artificial key in figure 1. The purpose of this paper is to synthesize and articulate a consistent model that Seventh-day Adventists can use in relating science and Scripture with reference to the question of origins.

I want to be sensitive to the fact that some believers, Seventh-day Adventists or non-Seventh-day Adventists, sincerely hold to some of the following models. I am not attempting in any way to impugn anyone's favored method of relating science and Scripture.

Substitution Model (also called the Traditional, or Literal Model)

Descriptive statement: Fundamental to this view is that Scripture, as God's authoritative word, contains truth that is applicable to science. The Bible is more trustworthy than science when the two have divergent views. In the case of divergent views, a literal interpretation of the Genesis is substituted for conventional science. In this view, the strongly held naturalistic worldview of conventional science has introduced unacceptable bias into scientific work, especially in regard to the question of origins.

Discussion: The substitutionist accepts the inerrancy of Scripture and uncritically rejects science if it conflicts with their interpretation of Scripture. Scripture is generally interpreted in a literal manner. The substitution model is essentially a position of conflict because the practitioner does not have an adequate knowledge of the science involved. When he confronts an evolutionist with his "findings" purporting to show where science is wrong, and finishing with a quotation from the Bible, the result is

harmful to both an understanding of science and Christianity for all parties involved. Consequently, there is frequently a deep-seated distrust, disrespect and misunderstanding on both sides. These are the kind of creationists that evolutionists love to debate. Another problem is that sometimes the substitutionist reads ideas into scripture that simply are not there. One historic example is the belief in the fixity of the species. It was a position the enjoyed scientific support in the time of Linnaeus, but was challenged by Lamarck and Darwin. The challenge of these later scientists was unnecessary because the Genesis “kind” (Gen. 1:11, 12, 21, 24, 25) need not be equivalent to modern definitions of species or any other single taxonomic level. Nevertheless, modern substitutionists often persist in the idea that the species on earth are unchanged since the creation. The Christians that favor this view are likely to be fundamentalist or orthodox evangelicals.

Relation to Seventh-day Adventist theology: Earlier Adventists had this view, reflecting the views of many similar conservative Christians of 50-150 years ago. (In my experience, Adventist adherence to these views still holds in parts of Asia and Africa.) Does it mean that some Adventists have changed their views on creation in the last few decades? Yes. Adventist scientists have changed our views on questions such as the fixity of the species, the meaning of the fossil record, and the reality of the ice ages. We have reversed or modified rigid positions held by most in the church that were largely due to the influence of George McCready Price. While none of these changes specifically contradicts a literal reading of Scripture, differences in interpretation of the KJV led some to cling to the idea of the fixity of the species, for example. For some decades, Seventh-day Adventist writers, including those associated with the Geoscience Research Institute, sought to dissociate themselves from uncritical “Creation Science” in favor of careful science aimed at understanding short-age creation and flood models (Couperus 1980).

Seventh-day Adventists without a background in science will often fit this model, but the Seventh-day Adventist church is well committed to education including education in the sciences. Furthermore the church is specifically committed finding a scientifically credible, and Biblically defensible position on origins. Achieving such a position would be no small feat. It is not surprising that conservative members are sometimes shocked and surprised to learn that professors in our colleges and universities do not adhere to their own uncritical views. A Seventh-day Adventist approach must therefore find some way to consistently deal with Scripture and science. The substitution model is inadequate because it denies physical realities in the creation, sometimes referred to as “God's Second Book” in our own literature.

Many Christians are uncomfortable with the confrontation and conflict that arises between science and Scripture as a consequence of the Substitution Model. The models described below are mutually distinct attempts to avoid confrontation and conflict between science and Scripture (see figure 1). In my opinion, none of these models are entirely acceptable to a Seventh-day Adventist, except for the last one, which is proposed in this paper.

The Compartmental Model (also called the Independence Model)

Descriptive statement: The basic assumption of compartmentalism is that science and religion deal with entirely different realms of thought. The realms of faith and science are kept in separate compartments and do not need to interact because there is no common ground or common language for them to meet. Early Genesis teaches theological truths, period. Science teaches about our most up to date understanding of the natural world.

Discussion: Two often cited clichés are relevant: “Science gets the ages of rocks, religion gets the rock of ages”; and “Science studies how the heavens go, religion studies how to go to heaven.” Science & religious belief are in separate intellectual “compartments” and do not interact or even need to interact. In this view, early Genesis is allegory or fundamentally mythological and teaches “meditative” truths of origins. Such a position leads to internal conflict within Scripture and raises doubt concerning the reliability & truth of Scripture. In its most extreme form, this model denies that Scripture and science coexist in the same realm of thought, allowing bifurcated thinking and fully blooming methodological naturalism.

Sometimes people become compartmentalists by default because they cannot resolve the conflict in their own mind, or they are simply too intellectually lazy to deal with it. I can speak with some authority on this point because for a time I was such a person. It is easy to become immersed in one’s scientific specialty and rarely think deeply and critically about the origin of the biological systems one studies. Few ordinary scientists are willing to challenge the prevailing evolutionary worldview when they encounter problems in that worldview because they fear that such a task would divert them from their research goals, or the task is too large to accomplish in their lifetimes. Furthermore, those that see connections between their work and intelligent design quickly realize that there are negative career implications associated with writing and speaking openly about their views. The consequence is compartmentalism of scientific and religious realms by default.

Dembski (1999) likens the compartmental view to windows in a house that look out onto different views of reality because they face in opposite directions. The two views of reality give rise to two types of knowledge in two airtight, non-interacting compartments. Not only does the compartmentalist achieve avoiding conflict with herself, she does not conflict with anyone else on the issue of origins either. She can be agreeable with all the tenets of the conventional story of origins and methodical naturalism while engaged in the profession of science, and when at church, she can confidently speak and interact with others from a Christian worldview.

Frankly, at the outset, this seems schizophrenic. How can diametrically opposed sets of ideas exist in the same mind without conflict? Perhaps the compartmentalist who pulls it off the most successfully is Jean Pond (2000), who objects to the label of compartmental model, preferring the name Independence Model instead. In fact she specifically denies the idea of compartmentalization, choosing instead the idea that the realms of science and religion interdigitate with each other, but maintain their independence. (Her view is somewhat blended with complementarism as it is described here.) She can frankly state that she is a believing Christian and a believer in the whole story of evolution because her Christian denomination (Episcopalian) has three parts to its authority; Scripture, tradition, and reason. Presumably tradition, reason or both, allow Episcopalians to dismiss large sections of Scripture if it does not fit with the other two sources of authority. Conservative Christians would have trouble with this view of Scripture as they have trouble with the Compartmental Model of the relationship between Scripture and science.

One might wonder if conservative, Bible believing Christians would find natural allies among another great group of monotheists, the Muslims. But within Islam, the debate does not appear to have been formed the same way, if at all. The reason is that many Muslim scientists appear to be compartmentalizers, such that it is not really a debate at all. It is clear that the Koran teaches that Allah is the Creator of heaven and earth who decreed the creation into existence.

The Originator of the heavens and the earth! When He decreeth a thing, He saith unto it only:
Be! And it is. Q. 2: 117

Like the Genesis account from which it is derived, the Koran has the creation taking place in six days, but it does not tell us what was created on which days.

Lo! Your Lord is Allah, who created the heavens and the earth in six Days, then mounted He the Throne. He covereth the night with the day, which is in haste to follow it, and His command. His verily is all creation and commandment. Blessed be Allah, the Lord of the Worlds! Q. 7: 54-56 (although other texts specify two days; see Q. 41: 9; 25: 59)

Neither do Muslim scientists get involved with the debate over the age of the earth. The second sentence of this passage would seem to indicate that the days of creation were literal days, but other texts indicate that a day with the Lord is as a thousand years, and another indicates that a day with the Lord is as fifty thousand years. This fluid relationship between divine and human time has been noted by Iqbal (2007) and has not allowed the rise of the young vs. old age of the earth debate within Islam. Likewise, there seems to be little discussion among modern Muslim scientists concerning the reality of evolution, or extent to which the creative acts of God involve evolution.

Therefore most Muslim scientists appear to compartmentalize: They have no difficulties and see no conflicts in teaching evolution in the classroom with all its ramifications while keeping it separate from their religious life. According to Iqbal (2007), the biggest problem Muslim scientists have with modern science is the “denial or reduction of the reality and existence of God”.

Even non-religious scientists sometimes argue for a compartmental view. Gould (1997, 1999) argues for just such a non-conflict position with his idea of “non-overlapping magesteria”, in which the domain of science and that of religion need not cause difficulty for each other. Gould's idea that science and religion represent non-overlapping domains (magesteria) was offered as a way of avoiding conflict with the predominantly Christian society in the United States. Gould appeals to proponents of both religion and science to treat each other with respect. Having said that, Gould was never one to shy away from vigorously defending science (evolution) from the literal creationists or “Scientific Creationists”, perhaps because he could not conceive of a compartmentalism that has a literal interpretation of Genesis and scientific thinking coexisting in an honest intellectual.

The Compartmental Model in Relation to Seventh-day Adventist theology: The compartmental model can be the lazy student's way out of internal conflict with the implications of religious belief and scientific training. It redraws the boundaries and insulates science from religion so that conflict and any other sort of interaction are not possible. It often may precede rejection of Biblical truths in favor

of methodological naturalism if the student is thinks about conflicts between the two belief systems. For example, the origin of the Sabbath is at odds with methodological naturalism is obvious to all. Additionally, Baldwin (2000a) has pointed out that if the Genesis flood is not fact, the geologic column must be the result of the natural processes and not sin. It means that if death appeared before sin there is no connection between sin and death in contradiction of Romans 6: 23. Then Christ's death is not the wages of our sins, the atonement is nullified and Christ's death becomes meaningless. Clearly, the idea of non-overlapping magesteria fails as a proposal to reduce the tension between evolution and Christianity, because of the necessity for integration of ones philosophy of origins with religious beliefs.

Perhaps the most important thing we need to remember about the compartmental model is that it can be easily "modeled" unintentionally. In our personal life and in our research we might fully subscribe to another model, but we will transmit the compartmental model if we fail to show students at every opportunity how our faith interacts with science. In an educational setting, we can easily come across as compartmentalists if we forget, or do not take time to clearly demonstrate how our faith interacts with the science we are teaching. Actions speak louder than words. We must remember that the reason parents send their children to our more expensive institutions is because they want an education for their children that is integrated, and robust, not compartmentalized into separate religious and professional spheres.

The Complementary Model

Descriptive statement: The basic assumption of complementary is that both the Bible and science are needed for a balanced view of origins. They use different methodologies, and offer different explanations and have different purposes. They are not competing views, but they offer complementary, fundamentally different kinds of answers to the same questions. For example, the Biblical message about origins is that God is the author of, and in control of the universe and everything in it, but it does not say how the universe or the biota was formed. Science cannot investigate God, but can cast light on the origin of the universe and the biota.

Discussion: In many ways this model is similar to the compartmental model, except that the two separate spheres of thought complement each other at certain points, but do not meaningfully interact. Dembski (1999) likens the complementary view as windows in a building that look out onto the same view, but from different angles or through glass with different sorts of flaws (warping, variation in

thickness, entrapped bubbles, etc.) Perhaps observation through one window is through the stained glass of a chapel. Some would suggest that the view of science is clear and relatively unobstructed, while that of religion has character. Nevertheless, the views through the separate windows are so different that the observer cannot use the same terminology when talking about the same reality. The view from neither vantage point is complete. In fact the complementarist delights in describing the same reality from different viewpoints because he believes that he can obtain a complete view only from both vantage points. Science and faith do not meaningfully interact because of profound differences in language. Complementarists reinterpret Scripture so that it has a view that can complement that of science.

The Complementary Model Relation to Seventh-day Adventist theology: The complementary model reconceptualizes theology – to accommodate it to science so as to avoid conflict. The reconceptualization of theology is so radical that little communication and interaction is possible between the two, so much so that the methodological naturalist sees no need for interaction with religion. The overall pattern in the complementary model is for religion to avoid conflict with science. Conflict can occur, but when it does, it is unclear whether science or religion should retreat. In the past it was usually religion that retreated in the face of well-organized evidence of science. But religion has now conceded so much ground that there is little left to concede when one takes the position of the complementarist, whose normal position is theistic evolution.

More importantly for Seventh-day Adventists, theistic evolution does tremendous damage to the fabric of our doctrine. As pointed out above, the Sabbath, as a memorial of creation and the atonement both become empty of meaning.

Both the complementary and the compartmental models easily lead to theistic evolution in which God creates by the process of evolution, but seems impersonal and disconnected from His creation. Defenders of theistic evolution often do so from the standpoint of a complementary view.

The Concord Model (also called the integration model, in its weak form)

Descriptive statement: In this model, both Scripture and science are taken seriously. Scripture and science should be harmonized immediately with available evidence. Each contains vital information for understanding the other when properly understood. Scripture can fill in philosophical gaps in the science. Detailed scientific understanding can fill in the scientific gaps in Scripture. These types of

interactions take place at only a few isolated points.

Discussion: The strong form of the integration model had its ascendancy during the middle ages, when nature was viewed as part of God's essence. Nature was thought to function in instruction of morality and that the lessons of Scripture and nature were essentially parallel (de Berg 2002). As knowledge of both Scripture and science grew, the two became more difficult to integrate and the level of integration became weaker. Robert Boyle (1627-1692) was both a scientist and a theologian that sought to integrate the two (de Berg 1999). The rise of experimental science in the 16th and 17th centuries began to provide natural explanations for phenomena that were once ascribed to God. Naturalistic explanations are accepted, but God is still needed to fill in the gaps left by science, leading to what is commonly called the “God of the Gaps” problem, in which God's actions are invoked to fill in gaps in our scientific knowledge. In other words, if the science is not understood, the phenomenon is attributed to God. Then when science advances and our understanding of the phenomenon becomes understood, God is not longer needed. God's activity in nature becomes less and less important, and his strength and role in the world diminished. Taken to its logical end, it leads to the conclusion that God is not needed at all. From the discussion above, this seems to be a factor why so many adherents to the concord model do not accept the idea of a personal God and the only replacement is methodical naturalism.

The foregoing paragraph should not be taken to mean that the integration model is absolutely dead. It still exists in a weak form, here called concordism. Many modern concordists maintain a Christian faith by liberally allowing reinterpretation of Scripture so that early Genesis is seen as allegory. “Concord”, or broad agreement between science and Scripture is achieved in the mind of the concordist at a limited number of points that are rarely articulated. There is meaningful intersection of Scripture and science in very few places. Given the frequent references in Scripture to who God is (the Creator), the concordist seeks broad harmony with the idea that God is the originator of the cosmos and the details can be learned through methodical naturalism. Geologists with a tendency toward Christianity may be concordists. Cosmologists who see the big bang as requiring a “Beginner”, may see that Beginner in Genesis 1 and 2, but may not necessarily subscribe to the idea of personal God, sin and the fall of man depicted in Genesis 3.

Relation to Seventh-day Adventist theology: In a more conservative manifestation, the concord model may offer a somewhat uneasy philosophical home to the Seventh-day Adventist scientist, especially if

that scientist is working in an area that does not directly involve the question of origins. Individuals may offer variations of concordism that seek immediate harmony between Scripture and what is known about science. Both Scripture and the data of science may undergo reinterpretation to achieve a harmonious story. The concordist who is a Seventh-day Adventist will probably not be comfortable with both the details of the science or the mainstream position of the church as they relate to origins. Common points of difference might be things such as 1) the age of the earth, 2) the Sabbath, 3) the degree to which the fossil record represents a record of the Noachian flood, or 4) the reality of the flood itself. The main point to remember is that these people are sincerely seeking immediate harmony in what they perceive to be the salient aspects of both Scripture and science.

The Proposed “Coherence” Model

Descriptive statement: This model holds that the Scripture is God's authoritative, inspired word and that it reflects God's character. Since nature is assumed created by God, it too reflects God's character, at least prior to the fall. But, this is not the place to begin. One begins with a personal relationship with the Creator as a friend, learning to trust the Creator's word, the Bible. When the understanding of science and Scripture do not align, the role of Scripture is to inform and guide the scientist to formulate hypotheses that can be tested where the results will help resolve conflict between science and Scripture (Brand 2007). The Coherence Model seeks a high level interaction, leading to integration of science and Scripture so as to arrive at a coherent story of origins that incorporates both. Faith has priority, but not necessarily to cling to some interpretation as authoritative. Both interpretations of scientific data and Scripture can be challenged and examined more carefully.

Discussion: That Scripture takes priority over science in this view would seem to be a weakness by the practitioners of science and liberal theologians alike. An alternative view is that “Faithful reason is no sacrifice of the intellect, *but the integration of reason into faith.*” (Hasel 2007, emphasis in original) Note that it is not integration of reason and faith, but the integration of reason into faith, implying that faith takes priority. Nor is it an integration of faith into reason, which characterizes the Complementary and Concord Models.

One motivation for reexamining Scripture is to search for new ideas to formulate hypotheses that can be tested by science. The adherent of coherence model remains faithful to the most careful exegesis of the texts, while pursuing his specialty in science. Those who adhere to the coherence model know they cannot trust too much in the data of science (for example, see Brand and Jarnes 2006). The scientific

method has limits, especially when investigating the past. Scientific data are continually being collected, examined, interpreted, and sometimes reexamined and reinterpreted. Continually seeking to understand the nuances of meaning and the context of the texts is an ongoing effort by many Biblical scholars. Thus the careful interpretation of both science and Scripture is ongoing and progressive.

Among mainstream Seventh-day Adventist scientists, the writings of E.G. White are often held in high regard. Likewise, her writings are frequently referred to as a second source of insightful information that is expected to inform the process of the scientific method. She herself advises that

“Nature . . . speaks of her creator. Yet these revelations are partial and imperfect. And in our fallen state, with weakened powers and restricted vision, we are incapable of interpreting aright. We need the fuller revelation of himself that God has given in His written word.” Education p.

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This gives a rationale for placing the Bible above studying nature alone when investigating origins. We need the extra revelation that comes from putting our observations of nature in the context of the written Word. Those that have struggled with the complexities of sciences when approaching questions involving investigations of pre-historic events would agree that without a contextual framework it is easy to become as one lost in a maze, unable to distinguish truth from error. Without trust in a Biblical framework, or worldview, one is unlikely to accept such a Biblically oriented standard of truth.

Will we ever achieve the unity and coherence symbolized by the unitary circle of the Coherence Model in figure 1? It is unlikely that the majority of scientists trained in methodological naturalism will ever accept the reality of creation or the flood. But among ourselves, someday we should be able to build a coherent, credible, and detailed alternative to the evolutionary story that incorporates the major threads of evidence from earth science, biology, and cosmology into a Bible-based worldview. For a long time before that happens, we who follow the Coherence Model need to be able to allow our scientific interpretations to coexist with the tension of not knowing all the answers or being able to perfectly fit science and Scripture together. This is a creative tension in which Scripture supplies an impetus to hypothesis generation that is absent in other models. The creative tension supplied by not knowing the details of earth history, but at the same time we “know” the general story of earth history as taught by conventional science is off the mark, gives us a flood a opportunities for hypothesis generation. We

only lack, time, funding and human resources to pursue them.

There is the expectation in Adventism that since God is the author of both the Bible and nature, that a certain harmony will be evident (Gibson 2003). Both are said to reflect God's character, and should harmonize with each other. During my own education in biology at a Seventh-day Adventist school, at various times I heard expressed the idea that “true” science can be harmonized, but this was evidentially not true when comparing the Bible and science textbooks. There are indications that science does eventually testify to the truth of revelation, but for more than 99% of the overlap between science and Scripture, there is tension. As graduate students we used to argue endlessly about the meaning and interpretation of data regarding origins. Clearly it was a state of *disharmony*, rather than harmony. Indeed the Seventh-day Adventist Church as a whole has not achieved a harmonious understanding where science and Scripture intersect. Nevertheless what I see is a patient willingness to coexist with the tension in spite of the reference to E.G. White that “Rightly understood, science and the written word agree, and each sheds light on the other.” (CT 426) We are not concordists because we seem to be at ease with the tension and do not leap to harmonize Scripture with every new finding of science. We are willing to admit that we may not know the answers during our lifetimes that will allow us to reconcile Scripture and science in the present.

Leonard Brand and others at the Geoscience Research Institute have practiced and written about what is essentially the Coherence Model, although they do not name it (Brand 2007, Brand and Jarnes 2006, Roth 1998). Certain Seventh-day Adventist theologians, among them Baldwin (2000b) have sought to point out the coherence between Genesis and Revelation, and how it links to a literal six-day creation, the Sabbath, and the reality of a global flood. Baldwin argues that 1) a Christian philosophy of science begins with personal knowledge and relationship with God, 2) the first angel’s message of Revelation 14: 7 supports the Biblical cosmology even in the postmodern era, 3) God’s destruction of the earth by a real flood stands in marked contrast to His ideal plan for the earth and its inhabitants, 4) there is consistent mutual support between the creation and a literal six day creation, and 5) the goodness of the character of God is confirmed as someone who is worthy of our trust. The work of these Seventh-day Adventist scholars is encouraging because it shows that there is a robust multilateral effort to illuminate a coherent, inclusive model among our theology and science. It confirms what I thought when I first read Wright’s (1989) descriptions of the ways that Christians can relate Scripture and science – that Seventh-day Adventists are not well served by any of the four models that he describes. In formulating the Coherence Model, I have been pleased to “discover” other authors that have modeled and

articulated aspects of the Coherence Model sometimes confirming what was in my mind and sometimes expressing valuable ideas I had not thought of.

Outside of Adventism there may be others that subscribe to a view closely related to the Coherence Model of relating science and Scripture. Schaeffer (1972) has written a small book in which he points out the value of Genesis 1-11 in putting man in his cosmic setting, without which we have no answers to the problems of metaphysics, morals, or epistemology. And while he did not deal very much with the conflict between religion and science over the question of origins, he does offer Genesis as a coherent response to other philosophical questions that trouble mankind. Friar and Patterson (2000) have expressed a position similar to the Coherence Model and what I have heard expressed at this conference. From their paper I have gleaned the following: 1) The Bible is the inerrant word of God to be interpreted with the care of hermeneutic principles. 2) There should be interaction between Scripture and science whenever possible. 3) Both Scripture and scientific interpretations need to continually be examined and reexamined. 4) A proper understanding of the Bible and valid interpretation of science will be consistent. A difference is that they stop short of openly allowing scripture to interact in the scientific process by suggesting hypotheses and experimental programs. However, they do say that

“Christian life scientists can play an important role in distinguishing the valid observations and organizing principles that guide current research from atheistic presuppositions that hinder or even preclude progress in some areas.” (p. 48)

The statement above suggests that Christian life scientists play a role as a critic rather than an active participant in science. If that is what Friar and Patterson really mean, I and many others would disagree, as we see ourselves as a participant in science, not merely a critic. Friar and Patterson set themselves apart from the Substitution Model in that they have a great deal of respect for science and evidence derived from the process of science, but science ignores the evidence of scripture to its detriment.

Conclusions

Existing models for relating science and Scripture fail to provide a comfortable position for Seventh-day Adventist scientists to relate to Scripture. Four models sometimes described as concordism, substitutionism, compartmentalism, and complementary either logically lead to theologically untenable

positions for a Seventh-day Adventist, internal conflict, or the frank dismissal of the evidence of science. Since God created nature, it reflects God's character (at least prior to the fall). This model that I have named the coherence model, is seeking consilience (the concurrence of multiple inductions drawn from different data sets) between the very different worlds of theology and science. While there are many points of deep conflict between science and theology concerning the questions of origins, a model of relating science to Scripture in a way that facilitates eventual reunification has rarely been articulated. It is my hope that the way these models have been described and the Coherence Model articulated here will not be the last word, but that it will stimulate Seventh-day Adventists to think critically about the way that they relate science to Scripture and stimulate further discussion.

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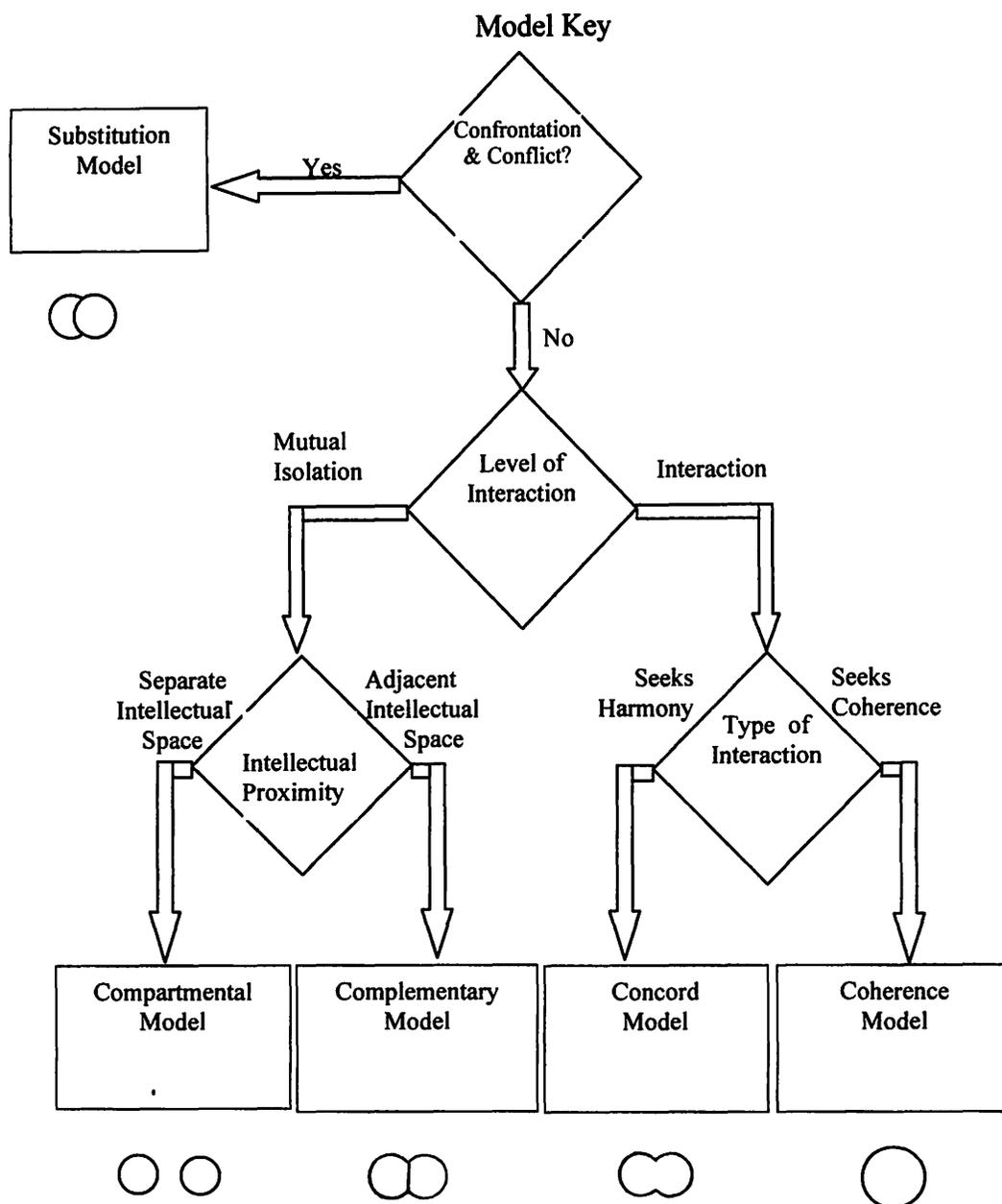


Figure 1. An artificial key based on descriptive characteristics to distinguish among five models that have been used to relate science and Scripture. The key is considered artificial because models close to each other in the diagram do not have a similar genesis. Circles below each model rectangle illustrate how Scripture and science relate in each model. In the Substitution Model, in areas where Scripture and science are in conflict, Scripture is deemed to be more authoritative and science is thought to be in error at those points, thus the scripture circle covers part of the science circle. In the Compartmental Model, the two circles of Scripture and science are separate and non-interacting. In the Complementary Model, the two circles complement each other by occupying adjacent, but distinct intellectual space with a clear boundary between them. In the Concord Model, the two circles of Scripture and science occupy adjacent, interacting intellectual space, symbolized by two joined circles without a distinct boundary. In the Coherence Model, two circles are merged into one, illustrating that Scripture and science are completely integrated, a goal to work toward, but likely one that can never be realized. See text for further details.

References:

- Baldwin, J. T. 2000a. The geologic column and Calvary: The rainbow connection – implications for an Evangelical understanding. *In* Baldwin, J. T. (ed.) *Creation, Catastrophe & Calvary*. Review & Herald Publishing Association, Hagerstown, Maryland.
- Baldwin, J. T. 2000b. The Bible and the philosophy of science. No. 404-00; 26-BCC: 89-137.
- Berg, Kevin C. de. 1999. Integrating science and Scripture: The case of Robert Boyle. *Christ in the Classroom* 24: 81-95.
- Berg, Kevin C. de. 2002. Science and Religion: Friends or Foes? *Christian Spirituality and Science* 3: 6-21
- Brand, L. 2007. The integration of faith and science. *Perspectives Digest*. 12 (4): 4-20.
- Brand, L. and James, D. C. 2006. *Beginnings: Are Science and Scripture Partners in the Search for Origins?* Pacific Press, Nampa, Idaho.
- Couperus M. 1980. Tensions between religion and science. *Spectrum* 10 (4): 74-88.
- Dembski, W. A. 1999. *Intelligent Design*. Intervarsity Press, Downers Grove, Illinois.
- Friar, W. and G. D. Patterson. 2000. Creationism: An inerrant Bible & effective science. *In* Carlson, R. F. (ed.) *Science & Christianity: Four Views*. Intervarsity Press, Downers Grove, Illinois, pp. 67-104.
- Gibson, L. J. 2003. Contributions to creation theory from the study of nature. *Journal of the Adventist Theological Society* 14: 138-149.
- Gould, S. J. 1997. Non-overlapping magisteria. *Natural History* 106: (March) 60-62.
- Gould, S. J. 1999. *Rocks of Ages: Science and Religion in the Fullness of Life*. Ballentine, New York.
- Hasel, F. 2007. How to deal with open questions: Facing the challenges between faith and science. *Ministry* :(July) 21-23.
- Iqbal, M. 2007. *Science and Islam*. Greenwood Press. Westport, Connecticut.
- Pond, J. 2000. Independence: Mutual humility in the relationship between Science and Christian theology. *In* Carlson, R. F. (ed.) *Science & Christianity: Four Views*. Intervarsity Press, Downers Grove, Illinois, pp. 67-104.
- Roth, A. A. *Origins: Linking Science and Scripture*. 1998. Review & Herald Publishing Association, Hagerstown, Maryland.
- Schaeffer, F. A. 1972. *Genesis in Space and Time*. Intervarsity Press, Downers Grove, Illinois.

Wright, R. T. *Biology Through the Eyes of Faith*. 1989. Harper San Francisco, a Division of Harper Collins Publishers, New York, New York.