Changing Views of Science and Scripture: Bernard Ramm and the ASA

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The relationship between theologian Bernard Ramm and the ASA for more than forty years has helped to shape much of evangelical thinking about Biblical interpretation related to science. His controversial 1954 book, The Christian View of Science and Scripture, marked the return of evangelical theology to a positive and scholarly assessment of science in relation to the Bible after a half century of neglect and conflict. An examination of his theological writings on science and his involvement with the ASA reveal a series of changing views on science and scripture that has influenced evangelicals at each stage.

Baptist theologian Bernard Ramm (1916-1992) had a long and fruitful relationship with the American Scientific Affiliation for more than forty years. Perhaps more than any other evangelical theologian in the United States, he has maintained an interest in science and has influenced evangelical scientists by his Christian thinking about science and scripture. He submitted papers to three of the first four ASA national conventions (1946-49), which were published in the first issues of the Journal of the American Scientific Affiliation (JASA) (1948-50); and he published seven more articles in JASA over subsequent years (1963-75). He served as a consulting editor to JASA for nearly 20 years (1971-89). These contributions reveal an interesting progression of thought on science and scripture, especially in relation to creation and evolution. They are all the more remarkable in view of the fact that they constitute only a small fraction of his complete theological writings as listed by MacDonald (1990), including more than 20 books and 200 articles, notes, and book reviews.

When Ramm published his controversial book, The Christian View of Science and Scripture (1954), it was met with a variety of strong reactions, both positive and negative. Reviews by Buswell, Culver and Mixter in JASA (D 1955) were generally positive, and 25 years later several expressions of deeply-felt appreciation were published by ASA members in the Bernard Ramm Festschrift issue of JASA (D 1979) along with an interview with Ramm by Hearn (1979:179-185). Both positive and negative responses in the press were reviewed in that issue by Ann Hunt (189-190). A critical review by Joseph Bayly in Eternity (August 1955) pointed out the objection of some reviewers (Sunday School Times and Christian Century) to the use of the definite article in Ramm's title, which was actually chosen by the publisher (Hearn, 1979:179).

Ironically, Ramm's 1954 book did not present a single Christian view. One of its most helpful features was his description and careful documentation of several possible interpretations of biblical passages relating to science, followed by his own preferred view. In fact, it is possible to trace a progression of
changing views of science and scripture in the writings of Ramm over the years as he has interacted with scientists and theologians and struggled with the problems of biblical interpretation. A review of his science-related publications reveals these developing ideas, which reflect some of the same trends in the thinking of many ASA members who have interacted with him.

Bernard Ramm was born in 1916 in Butte, Montana. He became a Christian two months before entering the University of Washington, where he had planned to study chemistry. His early interest in combining Christian faith and science continued when he shifted to philosophy as a preparation for the ministry. After graduating he completed a B.D. degree from Eastern Baptist Seminary. This was followed by an M.A. in 1947 and a Ph.D. in 1950 from the University of Southern California while teaching at the Bible Institute of Los Angeles. (He suggested the name "Biola" when it changed into a college).

After briefly heading the philosophy department at Bethel College and Seminary (St. Paul, Minn.), he became director of graduate studies in religion at Baylor University in 1954. Later he taught at California Baptist Seminary (Covina), Eastern Baptist Seminary (Philadelphia), and the American Baptist Seminary of the West (Berkeley). He studied under Karl Barth in Basel during a sabbatical (1957-58), taught at Haigazian College in Beirut during a second sabbatical (1966-67), and taught at Singapore Bible College during a third sabbatical (1984).

Like many Christians in scientific professions, I have been greatly helped by Ramm's writings and other ministries. As a graduate student I eagerly read his 1954 book, and found it to be a good guide when I began my teaching career at Wheaton College. During a year of personal association with Ramm in the Middle East, I was able to audit his philosophy of science course and observe his lifelong pattern of early morning research and writing. It was evident that he was always testing and developing his ideas. This development is reflected in his changing views of science and scripture, and provides a good case study in the progress of evangelical thinking about science over the last four decades. I will review three stages in Ramm's thinking that are suggested by his writings about science and the Bible.

Critical View of Science and Scripture (1946-50)

Ramm came into contact with the ASA through F. Alton Everest, the first president of ASA, while pursuing his graduate studies at the University of Southern California. He presented a condensed version of his M.A. thesis (1947) to the second national convention of the ASA at Taylor University in 1947. This condensation was published in the 1948 "Yearbook" of the ASA in mimeographed form as the first precursor of JASA, under the title of "The Spiritual Interpretation of Science by Jeans and Eddington." Here he carefully distinguishes naturalism as "the view that the universe is self-contained..." from idealism as the view that "the universe cannot be explained without recourse to such a concept as God, mind, or spirit." He summarizes Jeans' idea that "the stuff of the universe is far secondary to (its) mathematical design," and Eddington's notion that "all the energy, movement, and design in the universe must be ultimately derived from a Person." Their argument that "objective idealism is the only metaphysical position that can account for the nature of modern physical science, and the indisputable facts of consciousness" (1948:1-4) leads Ramm to the following conclusion:

Nobody is more certain than we are, that there is still a considerable gap between the position of Jeans and Eddington and Christian theism. But on the other hand we should welcome with a spirit of gratitude the work of every scientist that endeavors to break the steel trap of naturalism...American science must subject itself to the same vigorous self-analysis with a description of its assumptions and limitations that it expects of the theologian (1948:6).

This critical evaluation of science is applied to the theory of evolution in Ramm's second contribution to the ASA, presented (in absentia) at the third ASA national convention at Calvin College in 1948. It was published in volume 1 of JASA (June 1949:15) under the title "The Scientifico-Logical Structure of the
After discussing the nature of scientific knowledge, he arrives at the following applications:

Bold pronouncements then as to the finality of evolution as the ultimate theory of biology are not in keeping with the nature of scientific knowledge...As a hypothesis it can only survive when it can be shown that no logical inconsistency is involved...and no material inconsistency develops... . It cannot categorically state at the same time the following: (a) Life comes only from life; (b) Life arose spontaneously ages ago. Nor can it state categorically: (a) offspring tend to keep within the normal spread of variations, and (b) mutations arise that jump outside the normal spread of variation. Again, evolution must be revised or altered if it can be shown that it runs into difficulty with material implication. If no mechanism for evolution can be demonstrated then the theory stands in grave danger (June 1949:13).

Although Ramm takes a critical stance toward evolution here, he suggests that Genesis 1 is a broad enough sketch of "the successive creative acts of God" that it leaves "considerable room for the empirical determination of various and diverse facts." He continues:

Secondly, there is no advance upward apart from the creative activity of God. There may be horizontal radiation of life but no vertical. This is precisely the point where this view differs from theistic evolution. Evolution, theistic and naturalistic, believes in the radiation of life from lower to higher forms, from the simple to the complex. According to our view radiation can only be horizontal...there is only unraveling of gene potentialities--no upward evolution. And this seems to be in keeping with the fact that we do have in geology no demonstrable vertical radiation but plenty of horizontal radiation (p. 15).

He concludes that such an interpretive concept "would replace the evolutionary one because it can account for all that evolution tries to account for...and for the things that evolution cannot," since Genesis 1 "is a divine revelation." Thus, in these early articles, Ramm not only criticizes science, but views scripture as a supplement to scientific explanation.

Ramm applied his critical skills to psychology in his third contribution to the ASA, presented to the fourth national ASA convention at the Bible Institute of Los Angeles in 1949, where he served as the host representative for 75 registrants. This article was published in volume 2 of JASA (M 1950:28-31) under the title "Behaviorism and Philosophical Psychology." Here he criticizes behaviorism for its denial of the soul, which he believes "cuts the nerve of religion" (p. 28) and leads to the demise of ethics and
immortality. Among the "sins of behaviorism" is its "adoption of naturalism and evolution" and it is thus "enmeshed in metaphysical presuppositions" (p. 30). In conclusion he calls for a volume on philosophical psychology demonstrating "the bi-partite nature of man" (p. 31).

In 1948 Ramm presented the mid-year lectures of Western Baptist Theological Seminary (Portland), which were published as his first book with the title Problems in Christian Apologetics (1949). The last chapter contained Lecture IV on "The Limitations of the Scientific Method" (pp. 73-92). Here he lists ten criticisms of tendencies in science that lead to scientism, which are still relevant and can be briefly summarized. (1) Science exempts itself from scrutiny while complaining of the limitations of philosophy and religion. (2) Science confuses its method with metaphysics when it espouses positions such as naturalism. (3) Science rules out the personal dimension in its objective methodology, as in behaviorism. (4) Science assumes that the world of abstraction is the real world, leading to reductionism. (5) Science eliminates much of human experience in restricting its field of investigation. (6) Science uses mental constructs that cannot be directly observed. (7) Science cannot solve philosophical problems. (8) Science has no adequate doctrine of beginnings (creation) or endings (eschatology). (9) Science is based on assumptions and presuppositions. (10) Science depends on moral rules that are suprascientific.

His final conclusion is that "revelation and science must ultimately tell the same story," so that "when the final interpretation of the Bible is made, and the last law of science is formulated, that the answers will be the same."

In spite of these criticisms and conflicts, Ramm concludes with the recognition that science is a legitimate sphere of human activity. He warns against the "wholesale castigation of science found in some evangelical literature...not in keeping with the best of the conservative tradition." His final conclusion is that "revelation and science must ultimately tell the same story," so that "when the final interpretation of the Bible is made, and the last law of science is formulated, that the answers will be the same" (1949:91-92). These positive attitudes toward science, perhaps partly a result of his ASA associations, were a preview of the next stage in Ramm's thinking about the relation between science and scripture.

Concordist View of Science and Scripture (1950-57)

Publication of Ramm's The Christian View of Science and Scripture (1954) was one of the most important events in the postwar emergence of evangelicals from nearly a half-century of conflict with science. In a rather critical review, Bayly conceded that "In general the book does represent the view, delineated but not originated by Dr. Ramm, which is accepted by a sizable segment of the American Scientific Affiliation." He notes a general reaction to the book that "seems to be a sigh of relief that the quarter-century of identification with William Jennings Bryan, Harry Rimmer, George McCready Price, et al, is now ended. Christians have come of age in science" (1955:4). Bayly criticizes Ramm for attempting to distinguish between "cultural" and "transcultural" elements in the Bible by identifying references to nature as cultural and theological statements as transcultural.

From the first pages of the book, it is evident that Ramm has shifted from a critical view of science to an emphasis on the need for a harmony between Christianity and science. One evidence of ASA influence on his thinking is his listing of the ASA-sponsored book Modern Science and Christian Faith, edited by Everest (1950), among "books of outstanding merit" in his classified bibliography (1954: 355). Ramm's scholarship is especially impressive in his careful outlining and documentation throughout. Even more surprising is the fact that this book is one of four major works he wrote in about the same number of
years (1950, 1953a,b, 1954) while carrying a full teaching schedule.

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In his preface Ramm refers to the "noble tradition in Bible and science, "especially in the nineteenth century, "of the great and learned evangelical Christians who have been patient, genuine, and kind and who have taken care to learn the facts of science and Scripture" (1954:9). He also acknowledges his debt to Wilbur Smith of Fuller Theological Seminary for making available his "large collection of books on Bible and science" (p. 10). Smith's evaluation of Ramm's book is quoted from Moody Monthly by Everest in JASA:

The most important discussion of the problems involved in the vast and difficult subject of modern science and the ancient Scriptures that has appeared in this country in fifty years. It is the only book that I know of, by an evangelical scholar of today, that can be favorably compared with the masterly, learned works in this field which were produced in the latter part of the nineteenth century (D1979:187).

After discussing the importance of harmonizing Christianity and science and an analysis of their conflict, Ramm develops principles for interpreting the Bible in relation to nature. He notes "that the language of the Bible with reference to natural things is popular, pre-scientific and non-postulational" (1954:76). As creator, "God is world ground to Nature" (p. 105) and "the Spirit of God...is The Divine Entelechy of Nature" (p. 112). Ramm's concept of progressive creation as divine activity in nature, including occasional de novo creative acts, is an attempt to bridge the gap between "simple fiat creationism which is indigestible to modern science, and evolutionism which is indigestible to much of Fundamentalism" (p. 117). When he begins to apply these principles, he is able to clear the air of many foolish "anticipations of science in scripture," and to suggest alternative interpretations to many difficult biblical passages. One of the refreshing things about the book is the revelation that many scholars have struggled with these passages and Christians have arrived at many different conclusions.

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At this stage in his thinking, Ramm's preferred interpretation of the Genesis account of creation is a "moderate concordism." He rejects the literal six-day interpretation as inconsistent with scientific evidence. He also rejects the strict concordism of the age-day theory, even though he indicates "much sympathy for it, and held it for many years" (1954:220). He prefers the pictorial-day theory, in which creation is revealed in six days and the order of revelation is not strictly chronological, but partly topical or logical. In such a "moderate concordism...man was the last creation of God so that the last creative act of God coincides with the geological record of the recency of man" (p. 223). Moderate concordism means "that geology and Genesis tell in broad outline the same story...Both agree that the higher animals and man were the last to appear. The time element is not stated in the Genesis record and must by learned from the geological record" (p. 226). He reaches the following conclusion about creation:

Almighty God is Creator, World Ground, and Omnipotent Sustainer. In his mind the entire plan of creation was formed with man as the climax. Over the millions of years of geologic history the earth is prepared for man's dwelling, or as it has been put by others, the cosmos was pregnant with man...From time to time the great
creative acts, *de novo*, took place. The complexity of animal forms increased. Finally...he whom all creation anticipated is made, MAN, in whom alone is the breath of God (1954:227-228).

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In developing his idea of progressive creation, he notes "that the geological record does not reveal a continuity, an evolution, but that it reveals great gaps." He then suggests that "The geologist can record gaps and appearances and announce that he has no natural theory as to their origin. The theologian can inform the geologist of progressive creation" (p. 228). He distinguishes his view from "theistic evolution which calls for creation from within with no acts *de novo.*" But he recognizes that theistic evolution is a valid Christian option if it views evolution "as a secondary law of biology, and not the metaphysics of creation, but viewed as part of the divine creation, an element in providence" (p. 292).

In his final epilogue, Ramm concludes that "It is not true that all evangelicals believe that evolution is contrary to the Faith...we have given evidence to show that men whose orthodoxy is unimpeachable have accepted some form of theistic evolution or at least were tolerant toward evolution theistically conceived." He also affirms that "The Bible does not teach final scientific theory, but teaches final theological truth from the culture-perspective of the time and place in which the writers of the Bible wrote" (pp. 347-348). It is this position that he emphasizes in most of his later writings. In a recent evaluation of Ramm's work, Patterson concludes:

> Although Ramm's 1954 book was very influential among evangelicals, it made too many concessions to science. By combining elements of sudden *fiat* creation and graduation evolution, his form of "progressive creationism" turned Genesis 1 into a treatise in science to be evaluated, judged, and tested by science. But his "special creation," called in to provide the missing links left by natural evolution, is merely a form of the "God of the gaps" hypothesis (1990:66-67).

Patterson also points to the last stage in the development of Ramm's changing views of science and scripture: "Ramm's continued studies on the religious use of language in the past three decades led him to see more clearly that Genesis 1 is a cosmological statement serving a theological purpose." In 1983 "he set forth a new paradigm of how best to relate science...and...the biblical text" (p. 67).

**Contextual View of Science and Scripture (1958-1983)**

In the 1957-58 academic year, Ramm devoted his sabbatical leave to study in Basel under Karl Barth. He felt "that of all contemporary theologians the one who was doing the best job of relating historic Reformed theology to the Enlightenment was Karl Barth" (1983:10). When he wrote *The Evangelical Heritage*, he still had reservations about Barth (1973:118-120). But by 1983 in *After Fundamentalism*, he publicly declared Barth's theological method to be the best paradigm for evangelical theology in the
twentieth century, while not necessarily accepting all of Barth's conclusions (After Fundamentalism, Appendix 1). This approach emphasized that "If the writers of Holy Scripture are truly children of their cultures, then they express themselves in the terms, concepts, and vocabulary of their culture." At the same time it asserts "that embedded in the culturally conditioned Scripture is the witness to the Word of God or the divine revelation" (1983:47). With this contextual view of scripture, Ramm felt that many apparent conflicts with science could be avoided without forcing the biblical text into a modern mold.

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In 1963 Ramm contributed an article on "Theological Reactions to the Theory of Evolution" to an issue of JASA (1963) on evolution, which was also adapted for publication in Eternity (1965). Here he emphasized that "the Genesis creation account is a great confession of faith," and that "The Christian doctrine of creation is not embarrassed by the empirical contributions of science" (1963:71). While noting that evolution has been used to support materialism and atheism, the theory in its essence is not a threat to a proper understanding of creation. The theological idea of creation is a relational rather than an empirical concept. Creation is continuous in the sense that God has a continuing relationship to his creation, which is completely dependent on Him for its continuing existence.

These ideas led Ramm beyond his earlier emphasis on gaps in the geological record (1954:228) to the conclusion that "God is not the God of gaps in scientific knowledge. God is not the yet-unexplained in scientific theory. God is not an empirical premise for any scientific theory" (1963:74). From this contextual view, scientific theories "neither confirm nor refute the biblical doctrine of creation. Nor are the six days of creation surveys of the history of geology or biology" (p. 76). This theological understanding of creation "views the theory of evolution with indifference...That man is in the image of God is settled by the Word of God and not by human physiology, or comparative anatomy" (p. 77).

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In his 1966-67 sabbatical year, Ramm taught at Haigazian College in Beirut, Lebanon, where I was serving at the time. In addition to auditing his philosophy of science course and interacting on campus, my wife and I had many enjoyable experiences with him and his wife Alta. Among notes I received from him at that time, he again repudiates "the God of the gaps", but he does reserve judgment at two points. First, science may so box itself in that the only way out is by an appeal to God, such as in trying to account for the richness of the activity of the mind, or if the period required for evolution is drastically limited by the age of the earth. Second, in redemption, God is the God of the gaps in that the total motion of revelation and redemption originates with God and so moves upon man.

In 1969 Ramm contributed the lead article to a JASA symposium issue on "The Relationship Between the Bible and Science" (D 1969). Here his contextual approach is evident in a section entitled the "Importance of Context" where he discusses problems related to biblical inerrancy. He notes that "the special nature of a document means that error must be discussed within the context of the specialty of the document" (p. 100). He makes "a distinction between the structural and cultural forms that revelation comes through, and the revelation itself: The revelation does not dignify the structure into the category of the revelational." He concludes that "when we make a distinction between the modality in which a revelation comes and the teaching of the revelation itself, there is no contradiction between modern scientific pictures or models and Biblical revelation" (p. 101).
The contextual view is applied to the Genesis account of creation in Ramm's summary of Barth's approach to the issue of Genesis and science in After Fundamentalism (1983:152-154). "His first step is to let the Genesis record stand as it is, a product of the prescientific world with its prescientific cosmologies." Barth is not concerned about the different cosmological perspectives in Genesis 1 and 2 or other cosmologies throughout scripture. His second point is "that this multiplicity should not distress us. Christian theologians have used all kinds of cosmologies... There is no common cosmology behind sacred Scripture." This point recognizes the shifting paradigms throughout the history of science, so that the world view of the biblical writers need no longer be an embarrassment.

His third point is "that these texts (Genesis 1-3) are the Word of God. The Word of God is 'in, with, and under' the cosmology. The cosmology is not the Word of God, but the message within the cosmology is the Word of God. Revelation does not intend to teach science, and therefore the Word of God is independent of the cosmology." The fourth step is to remember that "If scientists do their work in theory construction within the limits of the data themselves, scientists will never say anything contrary to the Word of God," and "If theologians restrict themselves to the Word of God and pure theological statements ...then theologians will never say anything contrary to science." If science and theology are governed in their methodology by the nature and context of the subject matter they investigate "the conflict between science and theology" would be removed.

**Conclusion**

Most of Ramm's later contributions to JASA were applications of theology and ethics to new developments in science and technology. In an article entitled "Evangelical Theology and Technological Shock" (June 1971) first presented to the 25th annual convention of the ASA at Bethel College (St. Paul) in 1970, he reviewed scientific developments in areas like genetics, medicine and behavioral control, and suggested theological responses to possible conflicts. A second article entitled "A Christian Definition of Death" (June 1973) reviews three attempts to "bring theological insights to decision-making dilemmas in technologically advanced medicine" (p. 57). A third article on "An Ethical Evaluation of Biogenetic Engineering" (D 1974) evaluates four systems of medical ethics.

Bernard Ramm has been a helpful guide to the ASA and other Christians concerned about the relation between science and scripture. For four decades he has been on the leading edge of the renaissance in evangelical approaches to biblical interpretation and their application to a Christian understanding of science. His developing views of science and scripture over the years have matched the growing needs of evangelicals involved in science.

His early critical views of science in conflict with scripture helped Christians to emerge from isolation and begin to interact intelligently with scientific issues. The concordist approach developed in The Christian View of Science and Scripture set an example of outstanding Christian scholarship. It provided a biblical interpretation compatible with science that was an encouragement to a whole generation of evangelical scientists, even though it perhaps conceded too much to science. The contextual view of scripture that emerged in his later writings provides a new paradigm for relating science and modern biblical interpretation. It avoids unnecessary conflicts and allows the light of scripture to shine from its original context and illuminate our understanding of science.

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