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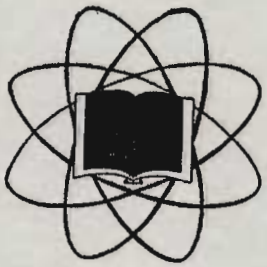

The fear of the Lord is the beginning of wisdom. Psalm 111:10

Vol. 8 JUNE, 1956 No. 2

The American Scientific Affiliation

(INCORPORATED)

The American Scientific Affiliation was organized in 1941 by a group of Christian men of science. The purpose of the organization is to study those topics germane to the conviction that the frameworks of scientific knowledge and a conservative Christian faith are compatible.

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The Journal Of The American Scientific Affiliation

Vol. 8 JUNE, 1956 No. 2

TABLE OF CONTENTS

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Illinois Section of A.S.A. Hold Meetings In Wheaton

Among local A.S.A. meetings was one held by the Illinois Section at Wheaton, Illinois, March 8, 1956. Led by Russell L. Mixter, a student preparing a thesis on "Philosophy of Science" presented an outline of the subject. Two topics elicited considerable discussion: (1) can we trust our senses, and (2) geological data versus sin.

The interest stirred up by the discussions led to a second meeting of the Illinois Section on April 26, 1956. Opened by Dr. Mixter, and with prayer offered by Hugh Paine, James Buswell III gave a detailed preview of the coming annual meeting. Mr. Buswell then presented material and led discussions on the anthropological remains of man.

The Paradoxes of Mathematics[*]

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In popular usage a paradox is a true statement which apparently has false consequences. The explanation of the paradox consists in showing that the false consequences do not, in fact, follow from the statement. Now, from the point of view of mathematics, which treats the strictly logical consequences of propositions, there is no difficulty at all with such statements. Hence, for mathematics, the term paradox has a sharper meaning; namely, a self-contradictory proposition. At first glance it would appear unlikely that self-contradictory statements could occur in a rigorous, deductive, mathematical system. Unfortunately, they do indeed occur and this paper will be devoted to a description of some of the more important paradoxes which have arisen to plague the mathematician.

It will be instructive to mention first a non-mathematical paradox which illustrates the basic principle underlying most of the mathematical paradoxes. This is the so called "Barber's paradox."

> The barber in a certain military unit is ordered by his commanding officer to shave those and only those members of the company who do not shave themselves. Now apply this order to the barber. If he does not shave himself then he fails to obey the order since he should then shave himself but if he shaves himself he is likewise failing to obey the order.

The difficulty with the Barber's paradox is simply that the officer's order does not determine unambiguously the class of men who will be shaved by the barber. It fails, in fact, for the barber and whether or not the barber shaves himself must then be specified by the officer.

A quite similar non-mathematical paradox can be formulated as follows: Let us agree to call a word "autological" if it modifies itself. For example, the word "short" is autological. On the other hand we will call a word "heterological" if it does not modify itself. Thus the word "long" is heterological. According to a basic principle of logic every word should be either autological or heterological. Let us try to determine whether "heterological" is heterological or not. If "heterological" is heterological then it does not modify itself and since this is the meaning of heterological it must be autological. But if it is autological it must modify itself and hence be heterological. The explanation of this paradox is similar to that of the Barber's paradox.

We turn now to the simplest of the mathematical paradoxes, the "Russell paradox." In order to describe this paradox we must first explain the notion of "class" or "set" as it is used in mathematics. A class is simply a collection of objects. Frequently it is the aggregate of all objects having some specified property. For example, the class of men is the aggregate of all objects which are both human and male. The class of even numbers is characterized by the property of being a whole number and also being divisible by two. The fundamental notion in connection with classes is that of class membership, that is, the relationship of an object to a class to which it belongs. Classes themselves may be members of a class. Thus the class of audiences in the various concert halls of the nation on a particular evening has classes of people as its members. Now, let us consider the class of all classes which are not members of themselves. The class of men clearly belongs to this class since its members are men, not classes. We then ask, is this class a member of itself? If it is a member of itself then it does not have the defining property and hence is not a member of itself. On the other hand, if it is not a member of itself it does have the defining property and hence is a member of itself. Thus we have formulated a self-contradictory proposition.

Now it may be argued that the class of all classes which are not members of themselves is indeed not a well-defined class just as is the case of the Barber's paradox where the officer's order was ambiguous with regard to the barber himself. But if we adopt this point of view then we have a property, namely, that of not being a member of itself which does not determine a class. This immediately raises a question concerning the validity of other classes. For example, can we be sure that the class of all integers is a well-defined class which will not lead us to contradictions? Clearly, a wide variety of classes are needed for the purposes of mathematics. On the other hand, too wide a flexibility in the definition of classes leads to a contradiction. Thus Russell's paradox emphasizes the need for a formulation of the language underlying mathematics which is sufficient to express the propositions of mathematics and yet which is consistent, that is contains no self-contradictory propositions.

The next paradox to be considered is due to Richard. It arises from considering the names of the integers in the English language. Now, since there are only a finite number of words in the English language and since the integers form an infinite set it is clear that not every

[*]Presented at the Tenth Annual Convention of the American Scientific Affiliation, Colorado Springs, August, 1955.

integer can be nameable in English in less than 13 words. Hence, "the least integer not nameable in English in less than 13 words" is a definite integer and is a name consisting of only 12 words. But then this integer is indeed nameable in English in less than 13 words and we have a self-contradictory statemcnt. As in the case of Russell's paradox any consistent formulation of the language of mathematics must be such that sentences like that of Richard cannot be formulated in the system. It is interesting that a number of systems which have been proposed for the foundations of mathematics have later been shown to have such a flexibility of expression that they were susceptible to paradoxes analogous to Richard's.

What then is the present situation in regard to the consistency of mathematics? Systems of language have been proposed which are adequate for all of mathematics and in which no contradictions have been detected. Furthermore at least one of these systems has been proved to be consistent. The proof, however, involves methods which cannot be expressed in the system itself and, indeed, the validity of these methods are questioned by some mathematicians. On the other hand, this result seems to be about the best that can be hoped for since Godel [3] has proved that any system which is sufficient for all of mathematics cannot be proved consistent by methods expressible within the system. This rather paradoxical result appears to close the door as far as a completely satisfactory logical foundation of mathematics is concerned. Nevertheless, the gap between adequacy and consistency is very narrow since systems have been developed which are adequate for a large part of mathematics and which can be proved consistent by methods expressible in the system itself (Church [2]). This curious situation with regard to the foundations of mathematics has prompted Andre Weil to remark, "God exists since mathematics is consistent and the Devil exists since we cannot prove it".

The inherent complexity of these questions make it difficult to go further into the construction of the various systems. It will suffice to mention that the central difficulty in the Russell paradox is the innocent little word "all". This word also occurs implicitly in the Richard paradox. For an alternative statement of that paradox is that the collection of *all* integers not nameable in English in less than 13 words is not a valid class. Though, intuitively, the word "all" seems above reproach, it has nevertheless been necessary to limit its application in order to obtain consistent languages for mathematics.

It has been mentioned in a preceding paragraph that there are principles frequently used in mathematics concerning which there is strong disagreement among mathematicians concerning their validity. One of these principles which has played an important role in the development of mathematics and which has been used in the construction of consistency proofs is the "axiom of choice" first formulated by the mathematician, Zermelo. In order to describe this axiom, let us consider a class of mutually disjoint, non-empty classes. The axiom of choice postulates the existence of a class which has the property that it contains exactly one element from each of the classes in the original class. Or putting it in another way, the axiom of choice asserts that it is possible to pick one element out of each of the classes in the collection and put them together to form a single class. Intuitively, this principle seems quite harmless. Nevertheless, the principle has far-reaching consequences, some of which even contradict our basic intuitions. One such consequence is a theorem due to Banach and Tarski [1] which is certainly paradoxical in the usual sense of the word. This theorem asserts that a sphere of radius one can be decomposed into five parts which can then be put together again in such a way as to form two spheres of radius one. Of course, the parts into which the sphere is decomposed have an exceedingly complicated and complex structure. As a matter of fact the parts cannot be constructed in a finite number of operations. And it is here that the axiom of choice comes into play. Nevertheless, the conclusion of the theorem seems to be contrary to our intuitions of three dimensional bodies. In spite of these consequences Godel [4] has proved it is possible to adjoin the axiom of choice to one of the standard systems which is sufficient for mathematics and if the original system is consistent then the new system will also be consistent. Many mathematicians feel that this theorem justifies the use of the Zermelo principle as a standard part of mathematical methodology. On the other hand, there are some mathematicians who feel that a proof using this principle is, in fact, no proof at all. In view of the nature of the problem it seems unlikely that this controversy will be resolved in the near future.

Finally, we turn to the question of the implications of these considerations concerning the foundations of mathematics for philosophy in general and, in particular, for Christian philosophy.

Now if there are serious difficulties associated with the logical foundations of mathematics where very precise and rigorous methods are available for exploring the consequences of propositions, it would be presumptous to suppose that basic difficulties of a similar nature are not present in other areas of knowledge. In fact, it is because of the high precision associated with the concepts and deductive procedures of mathematics that the detection of the subtle contradictions becomes possible. In a field where the basic ideas are not so carefully formulated, fundamental logical difficulties may be obscured by ambiguities in the definition of terms. Furthermore, since the language required for mathematics is, in many respects, similar to the language of

philosophy, these considerations indicate points at which trouble is likely to occur. For example, use of the word "all" in philosophical or theological arguments should be carefully examined to insure that there are no hidden inconsistencies. In point of fact, many classical theological controversies have centered about words with a similar inclusive connotation.

Next, it should be noted that while the reasoning of mathematics is formally deductive, much of the reasoning of philosophy and theology is intuitive in character. The formalization of the reasoning would, in many cases, be very difficult indeed. Now we have already pointed out the unreliability of intuition even in the domain of the foundations of mathematics where it would be expected to be accurate. Again, it is the existence of a rigorous deductive method which enables the mathematician to detect the errors in an intuitive argument. It seems reasonable, therefore, to suppose that errors in intuitive reasoning are just as likely to occur in areas where a rigorous method of checking the argument is not available. If this is the case, it emphasizes the need for a critical and tentative attitude toward intuitive thinking. This applies both to the professional philosopher in his ivory tower and to man in his daily conversations. In particular, Christian folk have a special obligation in this regard. For if their words betray a foolish and careless habit of mind, serious damage may be done to the Christian cause. By way of example, consider the very common practice among evangelical Christians of interpreting as the working of God the occurrence of an unexpectedly pleasant or, perhaps, longed for event. This is clearly an intuitive conclusion. If it were formalized it would probably run as follows: God is good—This event is good—Hence God is responsible for this event. When it is presented in this form, the weakness of the argument is obvious even though, in some instances, the conclusion itself may be true. However, in many cases, a little careful reflection shows that what at the moment appeared to be good would, from a long range point of view, indeed be evil. Thus in place of having been honored, God has been dishonored.

Clearly there are only a few who have the time and ability to acquire the intellectual sophistication of the professional logician. On the other hand, there is available to everyone the opportunity to acquire the modest amount of critical judgment and logical habit of mind which distinguishes the wise man from the foolish.

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OF INTEREST

An excellent set of popular articles on the beginnings of things has recently appeared in Christian Life magazine. Thus far four articles have appeared on "Origin of the Universe" (March 1955), "Life and How It Began" (September 1955), "The Development of Life" (January 1956) and "The Creation of Man" (May 1956). A.S.A. members have been primarily responsible for the contents, all under the able editorship of Prof. Russell L. Mixter, former President of the A.S.A. It is encouraging to see articles of this caliber in the popular evangelical press and they are highly recommended.

"Disposal of the Dead and Beliefs in an After-Life" was the theme of one part of a recent meeting of the British Association. Prehistoric modes of burial, ceremonial objects, as well as customs of living primitive people with their cannibalism, were discussed. The overall conclusions point to a general belief in an after-life, sometimes to the point of being careless about death as with the Eastern Highlanders of New Guinea. A summary is published in *Nature 176,* 809-12, (Oct. 29, 1955).

A note on the Swanscombe Man in *Science,* March 9, 1956 indicates that the recent discovery in 1955 of additional bones fits in well with the earlier portion. Of significance is that it appears quite modern, yet is exceeded in age in Europe only by the Heidelberg jaw.

The Christian Physician and "Faith Healing" *

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It is practically impossible for a Christian physician not to observe the pre-eminence of Jesus Christ in his medical practice and still claim to adhere to a Christian system of therapeutics. Professional medical work cannot be detached from the spiritual dynamic in one's life, nor can any part of the Christian's life be so categorized and still retain the normal pattern that "in Him we live and move, and have our being," (Acts 17:28). The difference between the course of action entered upon by the Christian as against the non-Christian physician is primarily one of orientation and direction; the naturalist looks at the glory of man, and the Christian aims for the glory of God.

The critic says our mind is thus prejudiced if not detached from the supernatural. We reply that it is unscientific to exclude at least the possibility of the supernatural. Furthermore, since medicine is not an absolute science we do not deal with cold facts and corpses alone, but with warm personalities. We have every right to orient our approach to medicine to include a transcendent God, His Son, the revelation of the Father, and the indwelling Holy Spirit. These truths are revealed in the Bible which provides the only means we now have of ascertaining the mind of God.

The Word of God then becomes a guidebook, not a source book in our medical practice. But here is a problem: the written revelation is acknowledged as having been completed for nearly 19 centuries, although orthodox medicine, in which we find ourselves, has been developed much more recently. How then can the Word of God be our guide? It is not by specific technical instruction but by careful interpretation, rightly dividing the Word to keep all Scripture in harmony, and by diligent application. This involves a knowledge of the historical context, which demonstrates the mind of God, limitless in time, space, and activity. Without it we cannot know the true relevance of faith in Christ to the medical profession. The actual working of God in our medical work because of our faith and trust in Him and our union with Christ cannot be derived from one or a series of proof texts without both their literary and historical context.

This is the point at which many writers on faith-healing or divine healing go astray, and much confusion arises. For example, some select Exodus 15:25,26 concerning God's care over Israel during the wilderness journey, combine it with Hebrews 8:13, that "Jesus Christ is the same yesterday, today, and forever," and thus bind God to a course of action without alternative. This is certainly a violation of historic and literary context as well as ignoring God's progressive revelation to man. The preservation in the wilderness was one of special providence. By the same token we could expect our shoe soles not to wear out as well as to expect healing from this verse. At the end of the journey, Zephaniah records this:

> "I will also leave in the midst of thee an afflicted and poor people, and they shall trust in the name of the Lord." (Zephaniah 3:12)

God is eternally the same, but His revelation to man was not cataclysmic but progressive. It was given to all men directly at first, later by the selection of a peculiar people, and it was finally made complete in Christ. Our attitude toward God's role in our medical practice and His dealing with physical illness is ascertained only with respect to this full revelation.

What is the origin of disease?

This brings us to the first major principle requisite to understanding God's role in health and disease—that of investigating the origin of evil and tracing from the beginning of creation the nature of man, the origin of disease, and its development since creation. This is inseparable from the study of the created universe and man as God's creation, and, in addition, the scriptural teaching concerning the fall of man and its consequences through the ages until now. It is necessary to know this to appreciate what man's present state is, what the result of sin has been, and the relationship to the provision God has made to redeem man both spiritually and physically. In summary form we may state what evidence seems apparent:

1. On the basis of Isaiah 14 and Ezekiel 28 we may attribute the independent origin of evil to the fall of an angelic being prior to or at the initiation of creation. God's glorification of Himself through creation was thwarted and has been thwarted ever since by co-existent evil.

2. Disease occurred subsequent to the origin of evil. Reliable paleopathological research suggests disease in animal life antedating man, apparently beginning with symbiosis in lower forms of life, then commensalism, and later active infection. This suggests to us that possibly severance from the Life-Source, which in reality is God, resulted in organismal

*Presented at the Tenth Annual Convention of the American Scientific Affiliation, Colorado Springs, August, 1955.

interdependence and ultimately disease.[1]

3. Most research on bacterial transmutation and kindred studies seems to show a more or less fixity of bacteria as to their pathogenicity.[2]

4. Anthropological data given by Weston Price [3] and also by Hooton[4] demonstrates a progressive decline in physical man. Scripture, it will be remembered, records a progressive decline in man's age span ever since the flood (Genesis 6).

In the face of this decline in physical man and the relative fixity of most viable etiologic agents of disease, there is the suggestion that man himself is the adapting organism who has become susceptible to disease processes, following all the rest of fallen creation. This fits well with the pronouncement of the curse in Genesis 3. The subsequent decline in the longevity of man suggests what we might term a "somatic depravity" as well as moral depravity, imputed to all men at the fall because of the racial sin in Adam (Romans 5:12). The reality of disease as having its origin in sin is obvious.

Then here is a fallen creation. Yet God chose to redeem His creation and to destroy evil—out of a heart of mercy, not by necessity. His design for redemption centered in the "Lamb slain from the foundation of the world." (Revelation 13:8). Evil was to become fully manifest and its full consummation given over to complete destruction as told in Romans 1.

Benefits of Redemption

The atoning work of Jesus Christ is the basis for *all* redemption. We now arrive at our second major consideration: What are the total benefits of redemption? When are they realized? And what can we claim as the benefits of this redemption for therapy in our Christian practice of medicine? This is the crux of the whole matter of faith-healing.

The *terminus a quo* of the benefits of redemption is the time of conversion: the *terminus ad quem* is the incorruptible new body of I Corinthians 15. At regeneration the believer is justified and no longer subject to the penalty of sin (Romans 3:24). Sanctification has begun so that ultimately the Christian may be "presented faultless before the presence of His glory" (Jude 24). Now at death the spirit is immediately in the presence of God. But the body lies, yet corruptible, in the grave. Physical death, the penalty for the imputed guilt of original sin in Adam, still occurs to believers. Thus complete sanctification of the body is not attained in this life. But it is realized by the believing dead at resurrection or by the living believers at the Lord's coming (I Thess. 4:16;17; I Corinthians 15). All sin is atoned for as the result of Christ's death, but somatic depravity persists and is remedied only at resurrection. Thus, in one sense, Christ atoned for all our sins, and laid the basis for the final sanctification of the body. He atoned for disease only as it is a result of sin—either that resulting from the susceptibility of somatic depravity or original sin, or that resulting from individual acts of sin. Moreover during His ministry on earth He took and bore in loving sympathy, not in atonement, all the sorrows and the sufferings which His hand relieved. This caused Him suffering as indicated in Mark 7:34 and John 11:33, where Jesus sighed, groaned, and was disturbed and suffered at the presence of disease. This is certainly not the natural order of things. Thus if sin be atoned for, mercy can come in anywhere to relieve and heal the body. That which meets the cause can of course meet its effects also. But what benefits can be realized for the body during life, during the time of spiritual sanctification? Are there physical benefits of the redemption? Is not Christ, then a complete Saviour, a Redeemer of both natures—the mortal as well as the spiritual?

The problem is now more limited in scope, and a true approach to faith-healing is possible. Christ surely is the Redeemer of the body as well as the spirit. But in keeping with Romans 8:18-24, "We wait for the adoption, to wit, the redemption of the body." The physical benefits of regeneration are the "firstfruits" of the Spirit or samples of the resurrection. There is no sudden physical rejuvenation at conversion, but rather a door to extended privileges is opened.

> "For the earnest expectation of the creature waiteth for the manifestation of the sons of God. For the creature was made subject to vanity, not willingly, but by reason of him who hath subjected the same in hope. Because the creature itself also shall be delivered from the bondage of corruption into the glorious liberty of the children of God. For we know that the whole creation groaneth and travaileth in pain together until now. And not only they, but ourselves also, which have the *first-fruits* of the Spirit even we ourselves groan within ourselves, waiting for the adoption, to wit, the redemption of our body." (Romans 8:19-23).

Creation under the curse is in the bondage of corruption. Hence disease, sickness, and death. There is the universal expectation here of an end of evil and corruption, the result of evil. This occurs when the body is completely redeemed. But for the present we realize benefits described in Ephesians 1:14 as the "earnest of our inheritance" or sample. But it is not a continued state. There will certainly be vacillations of one's physical state as long as somatic depravity exists. What relation do these vacillations and the first-fruits bear to sanctification? Here arises most of the problems of divine healing and the matter of sin, sanctification, and atonement. But here also the providence of God is revealed. These firstfruits are available to the believer as healing but not guaranteed to him. They are

rather the awards of sincere, believing prayer, given by God in mercy.

> "The prayer of faith shall save the sick." (James 5:15)
>
> "Epaphroditus had been sick . . . but God had mercy on him to heal him." (Philippians 2:27).

These "firstfruits" are entirely within the providence of an all-wise God. "Thine eyes did see my unformed substance, and in thy book were all my members written (Psalm 139:16).

John W. Sproul in his book *Divine Healing Today,* and MacKenzie in his book *Our Physical Heritage in Christ* both indicate that the Christian should NOT pray the prayer "'Thy will be done" because disease is never the will of God. Hereby they make God less than God and deny His providence in attempting to bind God to uniformity and guarantee healing to all. It also rules out His permissive, preventive, and directive will. The healing available to the Christian is, again, a benefit derived as the result of faithful prayer, rewarded by a merciful God.

Disease Serves a Purpose

Now if the providence of God embraces all things, even including illness (as, for example, the blind man in John 9, whose blindness was for his best good, and not a punishment for a specific sin, according to Jesus), there is a purposefulness implied. But what purpose could be served by disease, itself a result of evil? Does God use evil? C. S. Lewis in the book *The Problem of Pains* states that God send not only a simple good, but there is a complex good, which, in a system including evil, is directed so as to attain the least harm, being exploited for ultimate good, if even the destruction of the evil.

What is the value then of suffering and sickness to the non-Christian who is basically rebellious against God? Lewis suggests that it shatters the illusion that all is well and shows what we have is not good enough. De Pressence in his book *The Mystery of Suffering* indicates how easily man loses himself in pleasures and that affliction causes either adjustment or rebellion. This accords with the discipline of Hebrews 12 applied to the believer even in the unredeemed state.

Often in the Old Testament the hand that struck was the hand that saved. But at this point Christian medical men must realize that the benefit depends on how the affliction is received. If indignation is expressed at suffering, we may steal away patience and plant cynicism (I Peter 2:19,20). The prayer of faith has a place here but follows a warning as to the nature of disease and prays for conviction. Concurrent medical regimen may be instituted with the expression to the patient that there may be purpose in disease which will bring him to a point of decision . . . which may be either for or against Christ! When either decision is made, the purpose is accomplished.

The purpose of suffering in the Christian is different. It is no less within the scope of God's providence, however. Pardon now is not the goal; the end is holiness. Disease then is a discipline to the Christian in some way. This is best seen through the complete revelation in the New Testament. In the Old Testament each disease was viewed as specific retribution for specific sin. But with Job this view was superceded, and submission to affliction even by the righteous was required without seeing God's purpose. Now we can see more plainly His purpose in us (Ephesians 1:9). Obedience to God's Word and His will is primary. "My son, despise not the chastening of the Lord; neither be weary of His correction." (Proverbs 3:11). Hebrews 12 calls it chastening or discipline.

If disease can possibly have a place in God's providence, then what place is there for medicine? Would it constitute meddling? No, it is certainly not contra indicated. God ordains the means as well as the ends and uses human agency to whatever extent He desires before asserting His divine power. In John 11, Jesus asked for the stone to be removed from the grave of Lazarus before he raised him. He could well have rolled it away himself by a single word. In Mark 2, Jesus speaks of a physician as having his proper place.

A. B. Simpson *(The Gospel of Healing)*, however, claims that reliance on natural methods and using medicine is a "crutch" which destroys faith. This is possible. But Asa, the king of Judah (I Kings 15) died not because he trusted in medicines and physicians but really because he had not trusted God. James who states that the prayer of faith heals the sick also indicates that every good gift is from God. Why could not these "good gifts" include penicillin, anesthesia, and surgical technics? There is sometimes but slight difference between a food recommended for health and an extract or product of that food called a drug.

A distinction must be made between miraculous and divine healing at this point. Ambrose Pare, a 16th century surgeon, stated it well when he said, "Je le pansai; Dieu le guerit." ("I dressed his wounds; God cured him.") All healing is in one respect essentially divine. But not all divine healing is miraculous and the miraculous not all of the same degree. For example, after Jesus raised Jairus' daughter (Mark 5), he ordered nourishment be given to aid her convalescence. Paul, by the power of Christ brought about the healing of Publius' father on Malta (Acts 28), yet Trophimus lay sick in Miletum (II Timothy 4:20). Epaphroditus was ill for some time also. (Philippians 2:27); his eventual healing may have been every bit as divine; but its course did not make it seem especially miraculous. There is no special uniformity. Dr. J. O. Buswell, Jr., once said: "God never performs a needless miracle."

Have Miracles Ceased?

Some have claimed that the so-called age of miracles stopped as such with the end of the apostolic age, as does A. C. Gabelein in his book *The Healing Question*. But A. J. Gordon cites Uhlhorn in *Conflict of Christianity with the Non-Christian World*, showing authenticated sources testifying to healing miracles in the third century of the same calibre as in the first or in the apostolic times. If this is true, then there is no limitation to the apostolic age, and no reason to deny the possibility of the same type of miracle today.

But during the middle ages, there was much abuse of these privileges, and the Roman church gave them the value of practically fetishes. The gross and spurious replaced the plain and simple. As truths faded, so did signs. But nevertheless, history shows the recurrence of such signs at the times of religious revivals; for example, the Huguenots, Waldenses, and other movements. A gift cannot be sought, but rather given. However, since prayer and devotion to Christ, separation from the world, and consecrating all our medical skill to God will put us in position to realize power from Him, ability in diagnosis and treatment, and answers to our prayers according to His will. Pastor Blumhardt of Germany was said to have been a great man of prayer. Though he saw God answer prayer for healing often, he did not presume to have the gift of healing and go out to exploit it. It was only after two years of frequent prayer and fasting that he felt led to lay on hands and pray for healing.

Unfortunately today there are many who are parading a gift of healing which is not at all scriptural in nature. A healing meeting is never mentioned in Scripture. Gabelein cites well-documented sources to show that frequently a "cure" has not actually occurred, or the advantage is only through hypnosis. Testimonials of many of the cures are often so bizarre and vague and general that they are worthless as evidence.

Then it remains for us to seek a place of fellowship with Jesus Christ through abiding in Him and to consecrate whatever medical skill we have in order to be useful in the ministry to souls and bodies. It is important to remember the relationship of disease to the sin of man and moreover the sins of man, but at all times to remember that sickness and disease can occur within the scope of God's providence. Ultimate redemption will occur eventually when the bodies of the believers will be completely sanctified and will be new bodies for eternity. However the unsaved dead will be raised in their new bodies and forever judged in their bodies. Hence the body is important as the vessel of our temporal life here where decisions count for eternity and as a dwelling (when incorruptible) for the spirit for all time.

Karl Heim and The Transformation of The Scientific World View *

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Karl Heim is one of the most important of the continental theologians, though he is one who has been eclipsed in our attention by others, such as Karl Barth and Emil Brunner. He is especially interesting for the Christian scientist because he is one of the few who combine with their theological knowledge a deep understanding of the contemporary progress of scientific research.

Heim is convinced that recent advances in natural science, especially physics, have effected a transformation in its world view and have made it again imperative to ask the question of God. In an impressive passage he summarizes the earlier positions of science, which worked upon the human mind to such an extent as to make men feel completely emancipated from the theological context.[1] Heim is interested in establishing contact with this secular mind, in many cases so secular that the theological question has not become so much wrong as simply meaningless.

The world view which the scientific transformation has affected is the *causal-mechanical* view of classical physics—which held that there were fixed and absolute magnitudes, parts in a mechanical whole, where each event was determined by prior events, and where, if one could understand all the factors at any one moment, he could predict with absolute certainty the outcome of future events.

The tenets of the causal-mechanical view of nature, Heim says, have fallen one by one in the advance of physical research. Science has brought about: 1) the destruction of faith in the absolute object; 2) the destruction of faith in absolute time and absolute space; 3) the destruction of the idea of absolute determination in natural events.

I

Physics long considered the object of experience to be an entity existing independently, absolutely, apart from the observing subject. "The absolute object stands . . . as that which is conditioned by no subject at all."[2] An example of this belief is materialism, whose fundamental dogma is the eternity of matter (TSWV, 30). This eternal, fixed matter is the absolute object, something given, completely independent of ourselves (TSWV, 31). This belief in the eternity of matter gave materialism the nature of a religious doctrine (TSWV, 30, 28), capable of grasping the whole person and exciting religious enthusiasm. Matter was set in the place of God.

But when physics moved from the question of the configurations of matter to the question of matter itself, profound changes came about in its world view. It brought about the liquidation of materialism (TSWV, 34). The atom was broken down. Then as theory progressed the atom was no longer thought of, in the fashion of a perceptual, mechanical model, as being particles of matter in motion. "The material carriers of electrical energy had dissolved away. These elementary particles no longer exist as substances in solid continuity of being with an enduring self-identity; rather their existence takes place through forms where physical characteristics are not only unknown but actually undetermined, the characteristics persisting only in the recurrent determinations through an interchange of energy with other patterns and systems. Matter has itself become energy. It is no longer the case that there is a substratum at rest, to which something happens. All that remains is the happening itself" (TSWV, 38-39).

The picture was also disturbed by the discovery that energy is not given off in a steady stream but is always radiated in spurts which are multiplies of a fundamental action-quantum *(h)*. This discovery about the nature of energy radiation revived the corpuscle theory of light, which had given way to the wave theory. The road back was partially blocked, however, because the original corpuscle theory could not explain, e.g., the phenomenon of interference, that waves reinforce and cancel each other out. But, on the other hand, there were new observations, among them the so-called photo-electric effect, that could be explained only in terms of a quantum theory of light.

For Heim this indicates a *complementarity* of aspects. There are both a wave and a corpuscle. But these cancel each other out and cannot appear at the same time to the observing subject. As Heim puts it, "The corpuscle is only at a particular point when it betrays its presence at that point to an observing subject by some specific effect" (TSWV, 46). The wave effect, in turn, is ". . . the wave which expresses

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the variation in the probability of a corpuscle betraying its presence by some specific effect to an observing subject at any point in space" (TSWV, 46). As soon as the corpuscle reveals itself, the probability of its appearing (the wave) is extinguished. There is either a corpuscle or a wave. They are complementary, but they limit each other (TSWV, 48). Heim continues, "All these modes of expression used by contemporary physicists have meaning obviously only when the description of natural events contains a reference to an observing subject who is himself included in the event. For an absolute object, existing over and above any awareness, cannot be 'extinguished'. An objective entity cannot collapse into nothingness from moment to moment" (TSWV, 48).

One reality appears under two forms that can never be held together in human experience (TSWV, 49). But that the two aspects of experience are in a higher unity can be seen by a non-pictorial, purely abstract mathematical equation (TSWV, 62).

II

Because of a religious need for something stable man established the idea that the world had a fixed center, or a ". . . system of coordinates embracing absolute space and absolute time, whose origin is the middle of the cosmos" (TSWV, 66). But the Copernican revolution began the destruction of this idea, and the gradual realization of the meaning of this revolution has come to destroy the picture altogether. The classical relativity principle recognized a number of equivalent coordinate systems, and knew that we can translate from one to the other (TSWV, 68). The recent theories of relativity have done an even more thorough job of destroying the idea of absolute space and time. The absolutes have fallen one after the other: the earth as the center, the sun as the center, the idea of absolute space (Newton), the idea of ether as an absolute medium for motion.

The special relativity theory has shown the equal validity of various reference systems, and not only within the spatial dimensions. Even time measurements has become a matter of relativity (TSWV, 86). Time is now seen as a fourth dimension so that instead of absolute space and time we have ". . . the four-dimensional world of Minkowski, the unobservable space-time continuum, within which space and time are simply axes of coordinates whose configuration depends on the state of motion of the observing subject . . ." (TSWV, 94).

Absolute space and time dissolved into relative coordinates. It is possible to work out the mathematics of all space-time measurements in the various systems and show their relationship, and so a unity is seen between the systems (TSWV, 89). But it is impossible to think of things as moving in an absolute three dimensional space.

Again we see that the subject of experience has been brought into connection with the object. Space-time relations vary with the perspective of the observer. "In general relativity theory, the space-time systems which arise within different reference systems are relativized and turned into world-aspects belonging to subjects who see reality under different perspectives" (TSWV, 108). The unity of these spaces can be seen only by purely mathematical means.

III

Most destructive of all has been the effect of the new developments on the idea of the absolute determination of all events. In various forms the view was held that all happenings could be subsumed under one equation and that future events could be predicted merely by tracing forward along the causal chain. Heim sees this causal-mechanical idea to be a religious one (TSWV, 127), a bold attempt to erect a bridge of certainty out over the void of the future.

But Heim says, that physics have moved ". . . from the causal-mechanical picture beloved of a technical age which believed in magnitudes fixed and absolute in themselves, to a mode of thought from which all these absolute fundamentals have been relativized" (TSWV, 129). No longer could it think of matter as being points in objective space, moving according to fixed laws (TSWV, 129).

Especially the uncertainty principle of Heisenberg has upset the mechanical world picture. Heisenberg concluded from his investigations that a particle can have a position or a velocity but not both (TSWV, 131). The more exact one is in measuring the one, the less exact he must be with the other. Speaking in terms of Planck's action-quantum, Heim puts Heisenberg's position thus, "The product of the two unknowns is always an integral multiple of an elementary quantum of action. We can distribute the uncertainty as we wish, but we can never get away from it" (TSWV, 131).

It might be said that no exactness is possible because of observer interference. Bohr claims, however, that it is more exact to say that the physical interaction of the observer and object is a necessary condition of knowledge (TSWV, 132).

Here again is complementarity of aspects, and here again it is seen that the object cannot exist apart from the subject. The complementarity of position and velocity is understandable only if the subject is included in the picture of the object (TSWV, 133).

Quantum mechanics has by its mathematical investigations ruled out the possibility of a deterministic sub-structure to the world (TSWV, 135-136). Natural laws must be seen in terms of probability, and their firmness must be seen in terms of statistical regularity (TSWV, 136). When there are a great number of individuals involved, exact prediction is possible, be-

cause of what is called the law of large numbers. That regularity exists, however, on the background of a micro-physical world where there is only indeterminate activity.

IV

It is of considerable interest to note some of the theological and philosophical implications which Heim draws from his investigations. Indeed I have ventured into the foregoing material only as a preparation for these observations.

Heim sees a religious background to the drama in physical science. In man there is a religious need for a central point of reference, an absolute fulcrum, for a haven in which he can feel secure. The search for and vital concern in the absolute object, absolute space and time, and absolute determinism are indications of this fundamental need.

The development of physics has destroyed all these absolutes. It has shown everything to be relative. It has discovered complementarity, where the subject confronts two complementary but exclusive appearances of the same event. The higher unity of these aspects is understandable only in terms of non-perceptual dimensions which can be expressed only in mathematical terms (CFNS, 149). The real behind the appearances is otherwise an X, which remains hidden behind the duality of aspects. This complementarity shows that the object of experience is relative to the observing subject. Our experience within objective space can get us no farther than this X, this unknown beyond the subject-object relation.

This objective space is *polar*. By this term Heim refers to the oft-mentioned fact that everything is relative and that while remaining within objective space it is impossible to escape relativity and find an absolute starting point or end point. It also denotes a continual opposition of life to life, where the weaker is crushed. In this diversity no one perspective can claim any superior right to any other. The law of the stronger prevails.

A like polarity exists in the realm of the self, in the space of the encounter between the "I" and the "thou". This is a realm which is separate from the objective. Considered objectively any person might be subsituted for any other. For instance, just any workman might be able to do a given amount of work in one day. On a deeper level, as the subject of every objective experience, the self is unique.

It is possible for one to miss seeing his true self by thinking of the self objectively, after the fashion of a *thing*. He sees himself as essentially interchangeable with any other (CFNS, 199). He is immersed in the mass, the crowd. He thinks what "one" thinks; he does what "one" does. He is the typical mass-man (CFNS, 199).

The person can escape this objectification and can "come to himself" only by a discovery that comes to him as a shock. It is that he is an essentially unique self, placed in a particular location, and that neither his selfhood nor his location are interchangeable. It is a discovery that his true selfhood is beyond the objective and that personal encounter is a non-objective event. But it is also seen that no one self has any priority over the other. The space of personal encounter is also polar.

When a person comes to himself, he is faced with two inescapable questions: 1) why he has been placed in just *this* particular place, with his particular gifts, his particular perspective, etc.; 2) what he is going to do with himself, for the future lies open before him.

In answering the second question, Heim says there are only two alternatives open to a person: relativism or positivism. If one decides to take some established value as his lifeguide, he must come to realize that all values are relative, because all are transitory (CFNS, 181). One is lost in a polar space, in which no perspective has any preeminence over any other. The only other alternative is positivism, while one remains in polar space. By this Heim does not refer to positivism as ordinarily understood, but to the act of making a starting point by an arbitrary fiat— i.e., *positing* one. In neither case, relativism or positivism, can one find the absolute starting point upon which he can throw his entire weight, upon which he can base his life. A relative, transitory value cannot suffice. On the other hand, if one posits a value by an act of will, he could also remove it by another act of will. Either one continues hopelessly to seek an absolute in polar space, or he turns to seek it in a trans-polar space, the space of confrontation with the personal God. Within polar space nothing exists which might be capable of sustaining itself (CFNS, 182). One is then led to ask the question of God.

In his analysis of physics Heim found man with his mooring cut, threatened with being thrown into the void. His existential analysis also discovered man to be in a dilemma unless he sought something higher than the polar spaces of objective and I-thou experience. Objectively it is impossible to make one see that a trans-polar space exists; such a realization comes only as a shock, an experience which jolts and transforms the foundations of one's being (CFNS, 110).

Heim sees a religious significance in physic's destruction of the absolutes. It shows that God is the only absolute. "Thou shalt have no other gods before me." All the other absolutes are idols, taking the place of the living God. These false absolutes are constructed by man in response to a religious need, but they are demonic. There are spiritual powers, some of which are for God and some of which are against God. The progress of physics has destroyed some of

the false absolutes, and has opened up once again the way to ask the question of the true God.

V

For a contemporary theologian of format Karl Heim has some remarkable approximations to evangelical faith of an orthodox type. Among other things he stands for the infinity and personality of God (CFNS, 202ff.), miracles (TSWV, 169ff.), demons (TCWV, 174), and even the travail of creation waiting for redemption. The belief in demons and in the expectation of creation appears to be on the background of a panpsychism.

On the other side of the ledger, Heim does not maintain the exclusiveness of Christ. The volumes I have used do not treat this side of theology systematically; but I judge from the nature of certain references to non-Christian religion that Heim regards Christianity as being only a type of true religion, and not *the* true religion. This is due partly, I believe, to his idea of polarity. If everything objective is relative, how could Christianity, which is an objective, historical phenomenon, be anything but relative?

We can see this relativism in a broader context when we realize that Heim is an existentialist. Among other things this movement is characterized by contrasting sharply the objective and the inner, personal, existential. In true existentialist fashion Heim says that the issue for Christianity cannot be whether there is a particular objective content that is true. The issue is not this or that content or position, but is freeing the self from the objective mass-manhood (the One), and coming to oneself. Heim indeed goes farther in saying that one must then escape the Void by making an existential decision for the living God. Yet the test cannot be the acceptance of this or that, as one might try the spirits in terms of the belief in the resurrection of Christ or the Godhead of Christ. The test must be whether one has come to himself, has taken the responsibility of his existence upon himself, and then, declaring all else to be relative, has accepted his existence from the transcendent God, knowing that he is held by Him. The pleasure at hearing such words is dampened when one realizes that the existentialist dichotomy between the objective and the existential—though there may be an absolute God—makes it impossible for God to speak absolutely to man. Everything in the objective is completely relative, including *a fortiori* the Scriptures and any historical phenomenon. The issue is the existential attitude to this relative, the existential qualification by which the relative is seen in a new light, a transforming light, as Heim says, from a higher dimension, a suprapolar space. We can see, therefore, how Christianity, when reinterpreted by the existentialist, tends to be divorced from its objective, factual side.

It is not surprising that Heim and other existentialists, e.g., Barth and Niebuhr, are not interested in a *Christian* philosophy. It is rather irrelevant what position one takes objectively. Existentialism must insist on the relative character of the objective, however, even though this relativism is arched over by an absolute. The absolute appears for Heim in the relative when one accepts his existence as having been given by the divine. Even though one is a particular being at a particular place with only a relative standpoint objectively speaking, he has confidence that what he does is the will of God for him *hic et nunc*. (CFNS, 210). The objective standard of the Scriptures is replaced by an irrationalistic idea of divine leading, which transforms the movement.

Such traits are common in existentialism, and they should give us pause before we, with some orthodox believers, begin to toy with the idea of a Christian existential philosophy or theology. We can admit that existentialism has enriched philosophical thought, bringing up ignored questions and returning philosophy from a preoccupation with minutiae of analysis to the broad questions of man, the meaning of life, and human destiny.[3] But the dichotomy between the objective and the existential, the objective and the I-thou relationship, certainly contribute to making a synthesis of Christianity and existentialism questionable and bring up difficult problems within the existentalist position itself.

I must say, however, of all the existentialist theologians I have read, Heim comes the closest to breaking through some positions I have considered inimical to orthodoxy. May I illustrate by returning to his idea of the two religious directions, divine and demonic? The distinction is not strange to existentialist thought. It appears strongly, for instance, in the theology of Paul Tillich. But when Heim appears to say that there is actually a realm of spirit beings separate from man, that there are such beings striving against God, when he says that there are actual miracles, which can be either divine or demonic, he breaks through what I have experienced before of existentialist theology. I believe he uses an existentialistic criterion of the validity of miracles, for instance; but still I wonder whether Heim has been inconsistently existentialist or whether he has a synthesis of a type I had not seen before.

Finally, I wish to ask whether the acceptance of a relativity theory in the physical dimension *means that* we must relativize everything objective, e.g., morals, law. Heim vigorously rejects any use of an idea of natural law (Catholic positions) or creation orders (Brunner, e.g.), for these mean to him again an attempt to gain a handhold in polar space. But does a relativity theory in physics imply a general relativization? Certainly not by reason of any physical phe-

nomena could it do so, but only in terms of a general philosophical position, which is alone capable of setting forth the relation of the physical side of reality to the other sides.

The influence of the philosophical is also apparent in the rejection of the idea of causality by certain thinkers, a position which has apparently influenced Heim to a great extent. Dooyeweerd writes, "B. Bavinck pointed out that the modern trend in physics, which, following Heisenberg and Jordan, declared itself to be in favor of a fundamental abandonment of the concept of causality in physics, did so on the basis of philosophical considerations which it owed to Mach and Avenarius."[4]

Whatever may be the answer to the questions we have raised we must say that Heim has presented us with a delightfully written and logically powerful work, and that he offers a challenge to us who as Christian scientists and philosophers perhaps have reckoned too little with the changes in the world view of contemporary physics.

1. Karl Heim, *Christian Faith and Natural Science,* pp, 11ff. Hereafter called CFNS.
2. Karl Heim, *The Transformation of the Scientific World View,* p. 32. Hereafter called TSWV.
3. Cf. Heinemann, *Existentialism and the Modern Predicament,* p. 6.

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Comments On Knudsen's Review of Karl Heim

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We are grateful to Robert Knudsen for his informative summary and analysis of Karl Heim's *Christian Faith and Natural Science,* and *The Transformation of the Scientific World View.* These are volumes four and five of the six which have appeared in German in this Tubingen professor's series on Evangelical Belief and Contemporary Thought, beginning with *Glaube und Denken* in 1931.[1] For this gathering Professor Knudsen has wisely focused our attention on the two volumes which touch on science.

As has been pointed out in the paper, Heim's Christian philosophy is not subject to easy classification. Heim has been referred to as a Barthian who is "closer than Barth is to the older Evangelical tradition."[2] Any who have read the sermons which he preached after the First World War[3] or his 1935 Sprunt Lectures[4] given at Union Theological Seminary, Richmond, Virginia, can easily feel the evangelistic spirit of this popular teacher. The rational, higher critical emphasis of the University of Tubingen of an earlier generation is by-passed by this professor of theology. Heim's emphasis is on "the faith of the New Testament."[5] The essential saving truths are there, including the exclusiveness of Christ for salvation—though Knudsen may be right in questioning this in Heim's more recent and more philosophical writings. The decision to accept this core of the Gospel does not seem to impel Heim to affirm the inspiration and authority of *all* Scripture.

Professor Knudsen rightly calls Heim an existentialist. He shows the influence of Heidegger and Buber as well as Barth. According to Heim, "a proposition or a truth is said to be *existential* when I cannot apprehend it or assent to it from the standpoint of a mere spectator, but only on the ground of my total existence."[6] This definition may be interpreted in two ways. First it may be an affirmation that *not all* truth is susceptible to the type of analysis and investigation employed ideally in the empirical sciences where the technician is not unduly influenced by personal desires and commitments in arriving at decisions. There are truths—sociological, theological—in which one's own understanding of and involvement in existence may be not only unavoidable but desirable. Outside of the Logical Positivists, I believe that in one way or another these two approaches to truth—"detached" and the "existential"—are recognized. This aspect of existentialism is not peculiar to this philosophy.

But on a second interpretation of Heim's definition one stresses the words "mere" and "only". By a rational and scientific approach to experience we become "mere" spectators, whereas the "only" way to get *real* or *ultimate* truth is through a non-rational (if not irrational) participation in existence. One cannot decide whether one likes this or not until he is told by the existentialist what it means to "participate in" or to "be grasped by" reality. This is not easy to determine since by definition it is beyond rational expression. I believe there are both psychological and epistemological weaknesses in this approach to experience and knowledge, though space does not permit their elaboration here. These weaknesses plague Heim's philosophy, though he is not as staunch an advocate of the paradoxical as Barth. For this reason, and here I am in partial disagreement with Knudsen's evaluation, I find Heim's existentialism often more confusing than enriching. I do not always find his works to be "delightfully written and logically powerful."

Let me mention two outstanding obscurities important to the books under review.

(1) Heim is noted for his concept of "dimensions" or "spaces" as a mode for conceiving of different and quite *distinct* orders of reality. In *Christian Faith and Natural Science,* Heim uses a discussion of multi-dimensional space in modern geometrics as a spring board for positing the possibility of "non-objective space," space which is outside the objective world and hence cannot be mathematically formulated or approached with the methods of science. He argues that since the order of the arrangement of the entities in non-objective space may be *entirely different* from that which we commonly experience, it allows for the possibility of that which seems to be impossible. There are "consciousness spaces"—mine and yours—full of polarities or contradictions, while God belongs to still another dimension transcending polarity, a space which is beyond intellectual comprehension but into which we can be mystically drawn by His grace in Christ.

I must confess that I am not attracted by this speculative and paradoxical way of dividing up the universe. There certainly are a number of distinguishable categories or contexts within which it is profitable to view reality ontologically. But there must be continuities and interrelationships if we believe there is one Creator-God who is vitally related to created reality and who has made Himself known. Among other things this means that the logic of science or critical thinking has its appropriate role to play in theological investigation as elsewhere.[7]

(2) A second obscurity appears in Heim's interpretation of the history of physics as a religious drama. Professor Knudsen has indicated the able way in which Heim shows how science itself has been destroying its false gods—the absolute object or matter, absolute space and time, absolute determinism in natural events—and has paved the pay, according to Heim, for the one true Absolute (God, in super-polar space). This is *The Transformation of the Scientific World View.* The concluding chapters on miracles and on vitalism show that the reason why he sees a religious significance in the history of physics is because it has, in his view, opened the door for the operation of God's will and for human freedom.

This is not a new thesis nor is it, I think, a cogent one. It is dubious speculation. Heim himself is aware of the fact that these changes have not markedly altered the procedures and utility of the sciences. It can still repeat its experiments and hold to predictability as a test of truth. Precision is still its abiding ideal though masses of electrons be used and law be formulated statistically. Certainly field theory mechanics is not altered by the concept of relativity. Nor has Heisenberg's indeterminancy principle affected the question of human freedom or of what God in His providence can or cannot do. It just is not the case that physics "has shown everything to be relative." Logic and ethics *have not been* altered. In short, I suspect a fundamental confusion of two meanings of the word "relative": *related,* or *dependent upon* (as when we say an object of experience is relative to the point of view of the observing subject) and *confused,* or transitory (as when a skeptic or existentialist says everything is relative or in a state of flux).

I was happy to see this same criticism of Heim made by Mr. Knudsen. I hope that these remarks will underline it.

1. A translation of the third and abridged edition was published by Scribner's in 1936 under the title, *God Transcendent, Foundation for a Christian Metaphysic.*
2. Ibid., p. vii, "Introduction" by Edwyn Bevan.
3. *The Living Fountain,* Zondervan, 1936.
4. *The Church of Christ and the Problems of the Day,* Scribner's, 1935.
5. John Schmidt, "Translator's Preface" to *The Living Fountain.*
6. *God Transcendent,* p. 75, note 1.
7. Cf. my paper given at the Winona Lake meeting, June 21, 1955, "Bases of Scriptural and Scientific Investigation." Dr. J. Oliver Buswell has called my attention to the influence of Heim upon Daniel Lamont, of Edinburgh. Lamont pushes Heim's dimensional philosophy to paradoxical extremes in *Christ and the World of Thought,* T. & T. Clark, 1934.

Comment on Dr. Paul's Review of My Paper

Robert D. Knudsen

I am grateful to Mr. Paul for the comments he has submitted. They not only criticize but they serve to give my paper perspective.

I have the impression that Mr. Paul believes that I could have been more critical of Karl Heim. That is undoubtedly true. I actually only began to open the way to criticism. I thoroughly believe that a complete survey and criticism of existentialism is needed, and I am convinced that it can be made successfully only by one who is thoroughly familiar not only with it but also with its antecedents in German thought. As Mr. Paul indicates the idea of existentialism is not simple. Like many words that have a vogue, it has taken on a variety of meanings. We need only think of the fact that Heidegger calls his thought Existenzial philosophy, while he calls other thought Existenz-philosophie.

When I said that Heim's writing was "logically powerful" I did not mean to imply that he was right. I believe that a work can have logical force and yet be wrong. But to discuss that would take us far afield!

ANTHROPOLOGY

by

James O. Buswell, III, M.A.

Life's "Epic of Man"

The current series, "The Epic of Man," appearing in *Life* magazine has caused much comment among creationists, and many questions.

Beginning in the issue of November 7 of last year, four installments of a proposed fifteen or more, have appeared to date: "Man Inherits the Earth," "The Dawn of Religion," (Dec. 12), "The Growth of Society," (February 27, 1956), and "Man Shapes His Environment," (April 16.) The author of the series is Lincoln Barnett. He is assisted by scholars and institutions whose research, latest discoveries, and scientific views have been put at his disposal.

Also offered regularly, "for educators and adult discussion groups" is a series of Discussion Outlines. ($1 for the complete set covering the whole series.) Each one consists of 25 rather comprehensive questions covering the text material, and an anotated list of nine or ten authoritative books on the subject, both specialized and general. If one can read the text with any understanding, the book list is far more valuable than the questions.

The subject matter of the series, which is styled after the earlier *Life* feature, "The World We Live In," is on the "origins of civilization." Thus, with the exception of the first chapter, man's cultural development is stressed rather than his physical change.

These first four chapters each develop certain aspects of prehistory, that is ,the time before writing was developed. Parts I and II describe the Paleolithic, Part III the Mesolithic, and Part IV, the Neolithic.

One of the most striking and valuable features, which presumably may be discontinued in future chapters as cultures of recorded history are described, is the parallel description of a present-day primitive society illustrative of each pattern of culture traits. Australian Aboriginals illustrate the Paleolithic; Eskimos, the Mesolithic; and Berber tribesmen of North Africa, the Neolithic way of life.

These contemporary parallels immediately serve to remove the accompanying archeological reconstructions of prehistory from the realm of mere speculation and guesswork. Future chapters will treat great civilizations of the past, such as Sumer, ancient Egypt, Minoan Crete, and the beginnings of historic culture in Western Europe.

Any evaluation of this series must be couched in terms of both praise and reservation. First of all, its ideological assumptions are wholly evolutionary, as is to be expected. To this extent, certain reconstructions and conclusions are distorted and factually unwarranted, such as the alleged "discovery" of fire, the presumption that the "dawn" of religion occurred with the Neanderthal race, and that the Bear Cult "may have represented the first religious ceremonies of mankind." Such distortions, however, are clearly in the minority. The factual coverage itself is both up to date and reliable and does not have many of the faults commonly associated with popularized science.

The one most specific weakness, then, is the complete evolutionary orientation. Creationism, of course, is not even recognized as worthy of comment, chiefly because liberal Christianity today has accepted evolution and made it unnecessary any longer for the evolutionary scientist to bother with any serious consideration of an alternative. Thus, Mr. Barnett writes in the opening chapter:

> The spiritual qualities which differentiate man from the brutes are the concern of philosophers and theologians. They accept the fact of man's relationship to animals and his physical evolution from them, finding no point of conflict with the religious concepts of divinity and immortality. "Today," observed the famous Baptist minister, the Rev. Dr. Harry Emerson Fosdick, "the general idea of evolution is taken for granted as gravitation is."

When the time comes that evangelicals do something in science to the extent that they become established authorities again and the writers of accepted textbooks, then the evolutionary structure of scientific thinking will have to give way to the reasonableness of a sound Creationism cloaked in scientific responsibility.

In his selection of examples of fossil man, Barnett has wisely stuck to those which are the least controversial, and for whom the best authenticated evidence can be produced. Of course, the physical types of the bodies of these men are largely hypothetical as far as flesh and expressions are concerned. However, the reader will notice that the author is not dogmatic on these matters:

> If *Homo sapiens* did indeed live at so early a date he might have looked somewhat like the hypothetical people shown in the painting at the left.

In fact, with the single exception of the picture purporting to be man's "first encounter with the miracle of fire," all of the illustrations are completely reasonable and based strictly upon archeological remains and ethnological parallels. Furthermore, their colorful capturing of composite cultures is certainly valuable and instructive to say the very least.

It should be pointed out that the very reserve with which many of the reconstructions are handled reveals something of the reliability of the positive assertions which are based upon more conclusive evidence. With the above-mentioned exceptions regarding evolution, there is no undue dogmatism in the scientific reconstructions set forth. For example:

". . . mystic symbols *hinting* that the inspiration behind them was not esthetic but magical or reverent."

"Decorated implements like these from France *may* have been carried at religious rites."

"Statuettes of women at Stone Age sites *may* have served a symbolic function in mystic rites."

". . . model sailboat . . . *may* have been a child's toy."

"Clay figurines *suggest* that Neolithic people affected a high coiffure."

If, then, the text and illustrations are of such authentic value, upon what scientific principles is this reliability based? How can we trust the description of a prehistoric way of life when there are no written records?

Three basic bodies of evidence, I believe, serve to reveal how much can be interpreted from what would seem to be mute artifacts of a long dead culture.

1. *The actual finds.* This point hardly needs elaboration. A bone needle is a key to a whole complex of culture traits, (tailored clothing, for example,) just the same as a single human tooth proving something as complex as human society, or a plow proving the existence of agriculture.

2. *Parallels with living cultures,* and deductions therefrom. As indicated above, this is one of the major values of the series, namely, the publishing of a detailed account of a tribe illustrating the traits of a prehistoric era. This finds a prominent place in the method of most prehistorians, and is used much in Barnett's own text:

The parallel customs of living Paleolithic people suggest that such rituals must have rested on three concepts of man's relation to the supernatural world: mana, magic, and taboo. . .

By analogy with later Neolithic people it has been inferred that prestige derived . . . from a social status based on age, wisdom, or kinship ties. . .

By ethnological analogy it is presumed that. . .

Studies of primitive peoples living in the world today lead to the belief that. . .

Like those of modern tribesmen these ancient ceremonies probably. . .

3. *Interpretation in terms of present anthropological theory.* There is a great deal known today about the function of primitive culture. Prehistoric interpretation in a context of such data long since validated by the use of the comparative method in extensive field work, is not as difficult and mysterious as it might seem to be. For example, it is known that one of the characteristic differences between primitive culture and the cultures of Western Civilization is that the primitive ascribes a maximum of casual explanations to supernatural agencies, the sophisticate, or "civilized" man, a minimum. It is also known that the religious practitioner in primitive society takes a vital role in cases of sickness and death. Thus Barnett, illustrating the simultaneous application of all three of the above bodies of evidence, writes:

Believing as he did in supernatural causes of natural events, early man resorted to the shaman when afflicted with puzzling bodily ills. As with primitive tribes today, the shaman sought to exorcise malevolent spirits by incantation and the use of magic fetishes or magic spells.

This is an attractive and most instructive series, so far, a unique journalistic-educational venture, and promises to be a valuable and vivid document on the classic civilizations of the early historic period.

BIOLOGY

by

Irving W. Knobloch, Ph.D.

Man's Unknown Ancestors—Raymond W. Murray. Bruce Publ. Co. Milwaukee. 1943

This is a very interesting book of 384 pages. It deals with prehistoric man. Since a review of the book is outside the field of my competency, I shall content myself with listing some of the more interesting statements found therein as they bear on our organizational purposes. The statements may not be exact quotations but they will, I trust, convey the intended meaning.

1. There are sapiens types in the fossil record which are just as old as the non-sapiens types.

2. Skulls and other parts of over 100 individuals (of man) have been found including at least 16 rather complete skeletons.

3. The skeletons of Neanderthal man show a wide diversity of structure. Not all had the heavy receding jaw so commonly pictured.

4. The difference between the Java man and the Pekin man are no greater than those found among different races today. Both can be placed in the same genus and species.

5. The oldest non-sapiens fossils are not always the most primitive physically.

As indicated above, I cannot vouch for any of the statements above. There is enough difference, however, between some of the statements above and the common textbook treatment of the subject to make one wonder how dogmatic we can afford to be about man's evolution.

The Theory of Evolution and the Facts of Science—Dr. Harry Rimmer. Wm. Eerdmans Pub. Co., Grand Rapids, Mich. 1946. This is a rather small book of 154 pages and was written by a clergyman who has investigated science as it touches religion. The book is restrictive in that it contains only four chapters and deals only with (1) The Facts of Biology and the Theories of Evolution (2) Embryology and the Recapitulation Theory (3) The Theories of Evolution and the Facts of Paleontology and (4) The Theories of Evolution and the Facts of Human Antiquity. It is a book written for the layman and some of the errors in it may be attributable to over-simplification. Some of these are—the bird became a mammal and the mammal became a man (p. 20); it is (the cell) a

heterogeneous organism (p. 29); They contain a chemic material called "chromatin", and this fluid (p. 30); the spermatozoon approaches the ovum with the object of penetration (p. 32); The animals need protoplasm but they have no power to manufacture it (p. 35); these cells (zygotes) are not protozoa, they are the reproductive cells of the Genus *Homo sapiens* (p. 54); fertilization is possible only between the ova and the spermatozoa of the same species (p. 71); Coral is the body of a small insect (p. 80); he (Mr. Bryan) was confronted at Dayton, Tennessee, with the ablest cohorts of infidelity (p. 118). There are a number of other statements with which one might take exception.

Dr. Rimmer seems to believe in the fixity of species, a belief which both modern research and a study of paleontology reveal to be false. The limited type of evolution shown to exist does not invalidate a belief in the limited type of creation taught by the Bible.

CORRECTION: Our apologies for failing to mention that the last Biology Column "On the Recapitulation Theory in Biology" was a guest article by Richard P. Aulie, Bloomfield Township High School, Chicago Heights, Illinois and was reprinted from Turtox with the permission of the publishers.—Editor.

PHILOSOPHY

by

Robert D. Knudsen, Th.M.

For this issue I have asked Dr. William Young to present material for the column in philosophy. Dr. Young has been appointed chairman of the department of philosophy at Belhaven College, Jackson, Mississippi, where he will assume his position this coming academic year.

Linguistic Analysis and Scientific Truth

Present day philosophy in the English speaking world is largely devoted to the analysis of language. Among the movements characteristic of this trend, Logical Positivism has occupied the most prominent place. More recently, however, analytic philosophy has dissociated itself from some of the restrictions that marked the outlook of such positivists as the members of the Vienna Circle and A. J. Ayer. This later tendency was initiated by Ludwig Wittgenstein in his last years at Cambridge (See his *Philosophical Investigations.*), and has been developed by the present generation of philosophers at the University of Oxford. The contemporary interest is in ordinary language rather than in the kind of ideal language which Wittgenstein himself had formerly proposed in his *Tractatus Logico-Philosophicus.*

The *Tractatus* discussed problems of direct concern for the philosophy of science, particularly issues in the field of the foundations of mathematics. While the orientation of the *Philosophical Investigations* is to common usage rather than to the technical terminology of symbolic logic, the techniques of analysis developed in this work give promise of proving fruitful in the discussion of the foundations of the sciences.

F. Waismann, formerly of the Vienna Circle and a friend of Wittgenstein, is at present Reader in Philosophy of Mathematics at Oxford. He has achieved the rare accomplishment of combining with a philosophical interest a thorough, detailed knowledge both of the development of modern science and of the issues confronting the sciences at present. Waismann no longer represents the standpoint of the Vienna Circle but has attempted to employ the techniques of the most recent type of linguistic analysis in discussing the philosophy of science.

Among the prominent changes that this advanced movement has introduced is the abandoning of a naively empiricist approach to the conception of the nature and function of scientific investigation. While this does not mean a return to the nationalist outlook of Descartes or Leibniz, and least of all to Kant, it does signify a renewed emphasis on considerations of a rational rather than an empirical nature. Recent developments in the physical sciences themselves have no doubt contributed to this shift of perspective.

Even more startling than the abandoning of empiricism is the raising of the issue whether scientific formulations may properly be called true or false. This question is similar to that raised by moral philosophers at Oxford today as to the character of moral language. R. M. Hare in *The Language of Morals* contends that moral judgments are imperative rather than indicative and consequently may not properly be said to be either true or false. The view developed by P. H. Nowell-Smith in his Pelican book, *Ethics,* is similar in this respect.

Waismann has pointed out that the scientific writing of recent years may be searched in vain for the appearance of the words "true" and "false" as applied to scientific statements. Such statements are found to be designated as "accurate" or "inaccurate," as "satisfactory" or "unsatisfactory," etc., etc., but not as "true" or "false." He has even expressed himself as admitting the line of argument developed by Gordon H. Clark in *A Christian View of Men and Things,* pp. 205-209, as a factor contributing to the non-use of "true" and "false" in this connection. Clarks position differs from that of Waismann in asserting scientific laws to be false. "The particular law that the scientist announces to the world is not a *discovery* forced upon him by so-called facts; it is rather a choice from among an infinity of laws all of which enjoy the same experimental basis. Thus it is seen that the falsity of science

derives directly from its ideal of accuracy." (Clark, *op. cit.*, p. 209). The parallel between the views of Waismann and Clark is striking, despite the fact that Waismann would say that scientific laws are neither true nor false in the sense in which empirical statements might be said to be either true or false. The problem that these considerations raise is certainly one that should be faced by scientists and philosophers interested in the relations between science and Christianity.

Toronto, Ontario
April 28, 1956

PSYCHOLOGY

by

Philip B. Marquart, M.D.

John A. Schindler, M. D. was a medical classmate of mine. Now that he has written a best-seller, *"How To Live 365 Days a Year"*, I can see in this recent work the same painstaking, systematic, methodical person who learned his origins and insertions with me many years ago. He shows in a clear and popular manner how the emotions can play upon the organs of the body in real, not imaginary symptoms.

The author has done an admirable job of popularising the field of psychosomatic medicine, and showing how unwary husbands tend to pay in their wives' doctor bills for their own lack of love and understanding for their families. He shows so clearly that psychologic symptoms are neither "put on" nor are they "all imagined in the mind", but they actually produce bodily changes which may even turn into organic diseases, such as ulcer. Dr. Schindler is not a psychiatrist, but is practicing as the specialist in internal medicine in a small town clinic. Since he is practicing in a small community in which he had lived all his life, it is understandable that he knows the life histories and the family histories of his patients in a way that would not be possible in a large city practice.

Dr. Schindler does not in any way try to tear down the faith of his patients and one may easily add to his facts the truth of Scriptural faith, but it is obvious that he has left "religion" out of all consideration. I can understand his neglectful attitude toward "religion" since none of the local churches have any life. Yet there is a highly conventional advocacy of decency and ethics and a rejection of Freud and of Kinsey, in no uncertain terms.

I stopped at the author's home at Eastertime but did not find him at home. Since that time I received the following in a letter from him:

"Dear Phil:

"It was very nice to get your letter and to know where you are and what you are doing. It was nice to find out that you are a psychiatrist with both feet on the ground.

"I quite agree with you that for some people joining one of the organized churches seems to be of some benefit, but on the other hand, there are great many who find in it only increasing insecurity and frustration. In our practice we find that the clergy have a larger percentage of emotionally induced illness than almost any other vocational class, and we often see theological problems mixed up in people's troubles.

My own feeling is that there is a vast difference between religion and theology, and that theology has been a bad thing for the world."

What a pity that we Christians should give such an impression! Nevertheless, we feel that this book has much to contribute to Christian thinking, with much less danger than many psychology books.

SOCIOLOGY

by

Frank A. Houser, Jr., M.A.

When I was in the Navy the word was passed that if the sailors weren't griping there was something wrong with them. At the time this seemed to me to be just another irrational dictum by which the big brass kidded themselves and consoled their junior officers. As the word filtered down to the enlisted man it seemed to have a singularly unsolacing effect.

Now, in the light of hindsight and some sociological insight the dictum seems to make practical sense. Let's change it to "If the sailors weren't griping there was something wrong with the organization." Look at the large organization that has no "loyal opposition", no "party of the second part", no organized minority, and there you see hardening of the arteries known as oligarchy. Whether it's a trade union, political party, church, or U. S. Navy it needs the healthy criticism which is the first step in avoiding concentration of power and/or desiccation of ideas. Sometimes this criticism comes from outside the organization. Sometimes from within. In any case human organizations need it.

So, the griping could well indicate that (1) the organization is not really up to snuff, (2) the atmosphere is free enough to permit criticism. (3) the desirably taut organization which has activists instead of "apathists" is indeed to be congratulated.

These general remarks could well apply to the ASA. But, for the moment, let's look at the people who study groups—the sociologists themselves. Yes, the fratern-

ity of sociologists is far from uniformity. Even better, it is far from unity. But, it's a healthy kind of disagreement that is of interest not only to the sociologists themselves, but to Christian men of science at large.

The fascinating aspect of the division in the house of sociology is that the minority spokesman is the President of the outfit! Herbert Blumer is a man long respected in the society of sociologists but hardly agreed with by everyone. It is the merit of the organization that it elected a leader for this year who could focus attention on an issue which undermines the bulk of research in the field of sociology today. Not only the healthy give and take of ideas, but the substance of the issue Blumer states is of interest to ASA members.

Let's look at the issue. The main line research in sociology today stresses analytical variables which are discrete and homogeneous. Blumer asserted recently at the Midwest Sociology Society's convention that this emphasis results in "research at a distance" or setting up on the basis of certain "outside" concepts a design of a study. The mode of research is structured in advance. For example, if a sociologist decides to study the relation between griping and size of organization he proceeds by (1) defining griping or what indicates it, (2) setting up a questionnaire or interview schedule to reveal the subject's gripes, (3) setting up an experimental situation wherein a large and small group are compared when all other factors are controlled. Notice that in this approach the researcher came to the situation or looked for it with some fairly well established ideas in mind. Naturally, the level of the sophistication or refinement of concepts is much higher in today's research than our prosaic example. But, the point is that he comes to the situation with concepts or variables which have been gleaned from many previous studies or observation. In order to test his hypothesis he designs the study rigorously, and probably makes it very amenable to statisical manipulation—not just measures of central tendency, but correlation, chi square, critical ratios, or whatever device best fits the problem at hand.

Now as I understand the point Blumer is making, it is that the above type of approach, while useful, fails to lend itself to a faithful understanding of social behavior. Why? Because it "emasculates" the individual or group by forcing a conceptual scheme on one facet of behavior. Rather, says Blumer, ought sociologists to see persons as "wholes"—in interaction with others—so that the inevitable scheme with which we come to our study, may be open to vast amendment or reorientation as we allow the whole person in a full setting to act. The cardinal point of any empirical science is to stay true to the nature of its subject matter. This can be done, and has been done better, according to Blumer, by sociologists who involve themselves by way of "participant experimentation" in the study. "Sympathetic introspection" is a key.

As a matter of fact, Blumer indicates that the earlier sociologists who immersed themselves in the situation without completely prearranged ideas (and with fairly crude methods) probably have given us more lasting results than all the contributions of modern research. For example, Thomas, Znaniecki, Thrasher, Cooley, Park, and Weber stand out in the quality of their contributions. What today, asked Blumer, can match such concepts of earlier vintage as mores, primary group, bureaucracy, anomie, definition of the stiuation, *et al?* To introduce an intellectual understanding of experience of people studied is an art that seems hard to duplicate given today's approach.

Please note this is no blast aganst empiricism. It is a critique of the current variety of empiricism in sociology which gives us much that is precise, but little that is significant.

Christian men of science may be reminded here that the search for truth is best accomplished when free inquiry and discussion prevail. They may also note the revised defense of man who cannot be reduced to fit some analytical scheme without doing despite to both man and science.

News Items

The Victoria Institute has recently announced the offer of a prize of £ 40 (about $110) for an original essay on "The Presentation of the Christian Gospel and Its Impact on the Individual Today." Essays are to be sent to the Honorary Secretary (Mr. E. J. G. Titterington, 22 Dingwall Road, Croydon, Surrey, England), to arrive not later than October 1, 1956. They should not exceed 7,000 words in length and should be furnished with a brief synopsis of not more than 200 words. This synopsis should be written in plain language without abbreviations and should not require reference to the essay for its understanding. Essays are to be typewritten and undersigned with a motto only, which is to be repeated on an accompanying sealed envelope containing the writer's name. The copyright in the successful essay is to belong to the Victoria Institute, who may publish it or otherwise make use of it.

This essay competition is not restricted to members of the Victoria Institute and we are sure that the officers of that society would welcome entries by members of the A.S.A.

LETTERS

Editor:

As a member of the A.S.A. and as that reviewer of Dr. Ramm's book who called it "desperately bad," may I request space in the *Journal* to reply to a few of the strictures against my review? I have reference especially to the sentences on page 6 of the December, 1955 issue, where my review is said to exhibit "the negative, reactionary type of mind which does not analyze what is actually written, but revolts at the impact of first impressions. One is tempted to conclude that the mind was made up that 'this is a desperately bad book' before it (or the mind) was ever opened."

As for my approach to the book, at first I was favorably impressed. It was good to note, among other things, the desire that Christian statements on science should be informed; the views on the chronology of the earth and of man and the elasticity of the creative "kind"; and the opposition to the flood view of the fossils. But in the course of thorough reading it became very clear to me that the book is far from salutary when considered as *theology*. It seeks to set up a harmony of true science and fundamental Christianity, but in the process some of the bulwarks of the latter have begun to crumble away, or at the very least have been greatly undervalued.

I refer not to such matters as Dr. Ramm's view that the flood did not necessarily extend to the whole human race, although I believe that he is wrong at this point and that the Bible is unequivocally on the other side. There are two far more ultimate and decisive issues: the treatment of *Scripture* and of *evolution*.

In the treatment of Scripture there are concessions which surrender the full objective authority of the Bible. To be sure Dr. Ramm sincerely desires to adhere to a full doctrine of inspiration. At the same time he is apparently willing to continue responsibility for statements in his book which in my opinion give over the issue to the enemy. It is not my concern to attack Dr. Ramm as a fellow evangelical Christian, but to examine with the utmost objectivity certain concessions which he has made public. In objective discussion I herewith concentrate upon two of these concessions: they should be evaluated with the question, what is their significance in respect to Christian truth?

On pages 78 and 79 Dr. Ramm sets up a distinction between the "cultural" and the "transcultural" in the Bible. "Whatever in Scripture is in direct reference to natural things is most likely in terms of the prevailing cultural concepts." But the cultural vehicle itself is not inspired: "Because the Scriptures are inspired, the truth of God is there in the cultural, but not obviously so. The truth under the cultural partakes of the binding character of inspiration, not the cultural vehicle." He contrasts "a typical religious liberal" who would "write too much off as cultural" with the orthodox Lutheran scholar Francis Pieper, who "is so strict in his view of inspiration that he makes no room for the cultural, and so makes too much of the cultural binding." As an example of this supposedly extreme strictness Dr. Ramm then quotes a statement from Pieper: "But remember; when Scripture incidentally treats a scientific subject, it is always right, let 'science' say what it pleases; for *pasa graphe theopneustos.*" Dr. Ramm's immediate comment is: "The truth is somewhere between the two" (that is, between Pieper and the liberal).

To all this I would observe that Dr. Ramm leaves the definite impression that we ought to have a less strict view of *inspiration* than that held by Pieper, so as to allow that the Bible contains relative or cultural elements which as they respect science may not always be right. But Pieper stands on incontestable ground (II Tim. 3:16, quoted in Greek) and correctly insists that all other knowledge whatsoever, if opposed to the actual teaching of the Bible, is false. If Dr. Ramm merely means that the phrase "the sun rose" is popular rather than technical scientific language, he has chosen the worst terminology to say so. Everything in the Bible is fully *inspired*. Dr. Ramm's criticism of a "strict view of inspiration" allows for a view indeterminately weaker.

Again, Dr. Ramm contrasts the views of Leander S. Keyser and Emil Brunner on the first three chapters of Genesis. As is well-known, Dr. Keyser held to the objective historical truth of the Biblical account of the creation and fall of man; while Brunner, as Dr. Ramm observes, believes "there was no historical Adam nor historical fall" and "takes evolution as an established fact" (p. 319). Nevertheless we find Dr. Ramm saying that the true interpretation of man's creation and fall "will be somewhere in the territory between the literalness of Keyser and the symbolism of Brunner" (p. 322).

But Brunner's symbolism is inseparable from his view that Genesis 1-3 are not historical. His view of Biblical interpretation is determined by his attitude toward the Bible itself. Between Keyser and Brunner it is no mere matter of the interpretation of the Bible; it is the decisive question, *Is this the infallible revelation of God?* Keyser says yes, Brunner says no. How our interpretation could be somewhere between *Keyser's* literalism and *Brunner's* symbolism it is impossible for me to see. May we be delivered from alleged "interpretations" which in any way resemble the symbolism of Brunner. God created the world and man, and man fell, as described in Genesis 1:3; this

is historically true; we may go on from there to study all interpretations of these chapters which place them in the realm of historical truth. Other "interpretations" are falsifications. Dr. Ramm does not agree with Brunner; but why must he say what he does say?

With reference to evolution Dr. Ramm declares—although he is not an evolutionist—"the charge that evolution is anti-Christian, and that theistic evolution is not a respectable position, is very difficult to make good . . . Orthodox thinkers (Protestants and Catholics) have affirmed that evolution, properly defined, can be assimilated into Christianity. *This is strong evidence that evolution is not metaphysically incompatible with Christianity*" (Dr. Ramm's italics pages 289 and 292). At once we must ask, how is evolution properly defined? This is discussed by Messrs. James Buswell and Ramm in the December issue of the *Journal* with the valuable conclusion that "development" rather than "evolution" is a clearer word to designate changes within the Biblical "kind." It is possible, of course, after defining "evolution" in some such way, to use the word, and so Dr. Ramm does at places in his book. At many other places, however, he quotes "orthodox thinkers" who embraced "evolution" or made provision for it within Christianity; and the evolution for which they allowed was the malignant type, that is, continuous development of life on earth from simpler to more complex types culminating in the body of man. Such evolution, even though allowed by Gray, Dana, McCosh, James Orr, J. C. Jones, A. H. Strong, Short, Pieters, and various Roman Catholics such as Messenger, should have no standing with evangelical Christians because it is contrary to the Word of God. Dr. Ramm's "orthodox thinkers" were heterodox on this point; and as we all know it is possible for a Christian to take a false view on an essential doctrine of the faith. Either the Biblical account of creation is trustworthy or it is not trustworthy. If it is trustworthy, we must reject all forms of "theistic" evolution which holds that the process designated above as "malignant" was in fact the means whereby God "created." There is no value in disguising a view of evolution under the vague epithet "theistic." There is no clearness in supposing that if a Christian holds to evolution he must necessarily hold to "theistic" evolution, just because he is a Christian. It is a fallacy to say that the views of Christians on science must necessarily lie within the scope of Christian theology. This line of approach suffers us to drift away from Christian theology in the winds of current speculation, without first making sure of our moorings. I must also ask, is it a *Christian* metaphsysic with which, according to Dr. Ramm, evolution is by strong evidence not incompatible? If it seems plausible to say, after quoting a list of authorities, that we cannot deny that evangelical or even dogmatic Christians may properly hold to evolution, then I would reply, let us beware the defection which the inconsistencies of these same authorities have historically brought upon their followers. Let us take no comfort in their inconsistencies. At various times Christians have adopted a great variety of fatal errors. Let us not seek to see how comprehensive our theology can be in allowing for this error or that, but rather how faithful it can be to Scripture.

What I object to, then, in Dr. Ramm's book, are the theological concessions. I feel that I must regard them as concessions because they are made repeatedly and plainly. These concessions are entirely unnecessary from the standpoint of science, and from the standpoint of the views on science which are held in the A.S.A. as a whole, as I understand them from the pages of the *Journal*. I rejoice, for example, in the solid scientific contributions of Dr. Kulp. But Dr. Ramm's theological concessions are introduced in a book which seeks to harmonize science and Scripture, and the impression is given that the concessions are necessary on the part of an enlightened evangelicalism in order to present a reasonable case to the modern world. Nothing is farther from the case.

As I see the situation the A.S.A. is confronted with a possible change of course. I do not mean the question of uninformed methods. We are beyond that. I mean the question, how fundamental and Scriptural is that Christianity to which we are committed? We must adhere to fundamental Christianity as the purpose and bond of our existence. And there is no reason for the A.S.A. to turn away either from good science or from Scriptural theology.

Sincerely Yours,
Arthur W. Kuschke, Jr.
Westminster Theological Seminary
Philadelphia 18, Pennsylvania

March 7, 1956

Editor:

I must apologize to Arthur Kuschke for jumping to the conclusion, with evidently insufficient evidence, that he had made up his mind about the book with little or no examination of it. Although I disagree with him that Ramm's statements "give over the issue to the enemy" I am convinced that Mr. Kuschke's letter is a sincere and studious attempt to analyze the all-important underlying theological issues.

In reply, may I comment briefly upon Ramm's position on interpretation and inspiration.

The observation contained in Mr. Kuschke's sixth paragraph, I believe, is really unwarranted. Ramm is not urging a "less strict" view of *inspiration*. He is urging a recognition of the fact that the truth of God is indeed revealed in a human medium—language

and culture—which has changed greatly since the revelation was made, so that we must take the scriptures in some cases and "re-translate them into our transcultural concepts" (page 79)

Neither is Ramm's intention merely to show a difference between popular and technical scientific language. It is clearly a matter of attempting to answer the question, "How do we tell what is cultural and what is trans-cultural?" (page 77). A view of inspiration certainly need not be "indeterminately weaker" by avoiding either extreme in answering *this* question.

As for the second illustrative polarity which is criticized here, I think it is well taken that Brunner's "view of Biblical interpretation is determined by his attitude toward the Bible itself." But I believe Mr. Kuschke is anadvertently switching the discussion from a comparison of interpretations to a comparison of beliefs. Certainly an interpretation of scripture may fall somewhere between an ultra-literal one and an ultra-symbolic one, no matter whether one's attitude toward the Bible be one of belief or unbelief.

Operating within a very restricted concept of time (prehistory), Keyser exhibits most of the misinterpretations of scripture now recognized as typical of such a position. Thus in his emphasis upon the immutability of species, equating "kind" with a non-genetic concept of "species," Keyser may very easily be shown to have been "wrong" in these details as well as in other aspects of this pattern of interpretation, while at the same time holding the "right" view of inspiration and inerrancy of scripture.

The claim that our interpretation must be somewhere between Keyser's and Brunner's interpretations certainly need not imply that our belief in the scriptures must necessarily be identified as farther from Keyser's position and closer to Brunner's.

With these things in mind, then, I believe that many reviewers of *The Christian View of Science and Scripture* have misunderstood both Dr. Ramm's terminology ("cultural" vs. "trans-cultural," a distinction so ably discussed by Smalley and Fetzer in the second edition of *Modern Science and Christian Faith* using the term "supercultural" instead of "trans-cultural,") and the context of many of his observations on inspiration. Rather than "theological concessions" they could perhaps be referred to as "interpretive non-conformities" which, as Culver has pointed out, are, in most cases, not original with Ramm, or even with the present generation.

Sincerely in Christ,

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