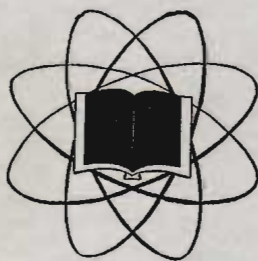


JOURNAL

of the

AMERICAN SCIENTIFIC AFFILIATION



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

Volume 7

March, 1955

No. 1

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.

PUBLICATIONS

The Journal of the American Scientific Affiliation is issued quarterly. Its contents include primarily subjects both directly or indirectly related to the purpose of the organization, news of current trends in science (including sociology and anthropology), and book reviews.

Modern Science and Christian Faith, is a 316-page book containing ten chapters on nine fields of science, each written by a person or persons versed in that field.

A series of *Monographs* as follows:

No. 1. *Christian Theism and the Empirical Sciences*, by Cornelius Jaarsma, Ph.D. A 10-page booklet. "The data of the sciences are given their true structure when integrated in the unity of Christian thought based on revelational presuppositions."

No. 2. *Creation and Evolution*, by Russell L. Mixter, Ph.D. A 31-page booklet covering various aspects of the subject, and showing that limited creation is a reasonable belief.

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The Journal Of The American Scientific Affiliation

Vol. 7

MARCH, 1955

No. 1

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EDITORIALS

Doctrinal Statement

Progress of the American Scientific Affiliation in its service of providing a consistent foundation upon which the structures of science and Christian faith can be harmoniously built, has been remarkable. As the organization grows physically we should expect to see continuous development with the added talents of new members.

To ensure a common outlook in faith, the pioneers adopted a constitution embodying a lengthy doctrinal statement to which each aspirant to membership was asked to subscribe by written signature. Specific items concern the attitudes and stands to be taken toward the Bible, toward God, toward Christ, toward the Holy Spirit, and toward certain future events. (Under the present Constitution, applicants for Associate membership sign a somewhat abbreviated statement.) While it is probable that some signatures were written with some mental reservation, at present it seems that few, if any, has had any serious objection to the doctrines specifically mentioned.

Some reasons for a detailed doctrinal statement were:

(1) The preservation of a conservative Christian society was desirable. There are fundamental differences—differences that we consider decisive for the disposition of a human soul—between the doctrines of conservatives and liberals which, it was felt, should be delineated.

(2) Internal dissension was to be minimized. Progress would likely be hampered if all varieties of Christian thought were included. While it is our duty to face fairly all real issues, it was felt, quite properly, that membership need not be accorded those we are convinced have fundamental beliefs not in agreement with the clearer aspects of scriptural doctrines.

(3) Fellowship with those of like persuasions was considered important.

Knowing our position to be a minority and unpopular one, it is a tremendous psychological advantage to be assured one has the support of a group on basic issues.

The feeling has been growing, however, that our Constitution, and particularly the doctrinal statement is a hindrance to the development we should be experiencing. This does not stem from disagreement with the three points above but from practical considerations. Briefly the objections are:

(1) The statement constitutes a barrier to our association as an organization with other groups. Recently, a group with a similar detailed doctrinal statement was refused on-campus meetings at a major university. Initially, permission was virtually granted even though it was known to be a fundamentalist

Christian group. Before final action was taken the constitution was read to the committee, which then refused permission. Whether their objections were valid or not, an opportunity was lost.

(2) Prospective members refuse to join because commitment to a rigid set of beliefs throws doubt upon the freedom of pursuit and open-mindedness considered essential for scientific research. It is difficult to be sure of some doctrines when even the fundamental nature of inspiration is still debated among conservatives.

A physicist who might join an organization of research physicists which required signing a statement that he believed Einstein's laws of relativity, Maxwell's electromagnetic theory, and Rutherford's picture of the atom, could hardly be expected to search for the truth wherever it may lead. He may be convinced of the validity of these laws, use them in his practice, and feel reasonably sure they will not be proven wrong, but that is quite a different thing than committing himself to such over his signature. In the A.S.A., we are in much the same position. We may feel assured that our basic doctrines are logical and sound in the light of all evidence available, yet we put ourselves in an untenable position scientifically. Probably most of us feel we are quite free to study our theology critically as well as we might our science. Yet in a legalistic sense we have signed away our freedom to do so on some points. And this seems to be a justifiable criticism of our organization by scientists, in view of our claim to be one in which all facts are to be faced.

(3) The stigma attached to being a "fundamentalist" often works to disadvantage in one's pursuits. That word in the mind of most people has become associated with so many weird and unscientific concepts that it should be shaken off. While we may protest that our beliefs and Constitution are not so regimented, the present doctrinal statement is usually interpreted as such. It is not a question of comprising one's faith but a question of practicality in the matter of being a Christian witness, that barriers are not built up unnecessarily.

(4) The Evangelical Theological Society has a one-sentence statement of faith which has been adequate.

(5) The Victoria Institute, founded in 1865, has remained quite conservative with only a very brief statement concerning its objects.

(6) Finally, it is pointed out, long doctrinal statements have failed to preserve the Biblical faith of some of the larger denominations. The question arises as to whether objections to the doctrinal statement in a scientific organization implies similar objections to signing a like statement in a church. A double standard of beliefs is an intolerable one, of course, and disbelief of any statement makes a hypocrite of one

who professes he does believe such. However, convinced that the doctrinal statement is correct, commitment to it would be perfectly in order for the purposes of church membership. Repeating, it is not a question of doubting ones faith, but of ones *scientific* commitment with regard to doctrine.

These are issues that have to be thought through with deliberation. The problem largely centers upon whether we are to be increasingly effective in the *rapprochement* of science and faith, and, more important, of scientists and vital personal Christian faith, or whether we are to be a closed group, studying our problems and publishing literature that will be read by Christians only.

The President has appointed a committee, representing a good cross section of the convictions in this matter, to study this problem. It behooves each one of us to consider it in deliberation and prayer. The Committee will undoubtedly be interested in your conclusions and reasons thereof.

D. N. E.

REMINDER

The joint meeting of the Evangelical Theological Society and the American Scientific Affiliation is to be held at the Grace Theological Seminary June 21-24, 1955. The committee is working on a very interesting program. Dr. Paul R. Bauman is chairman of local arrangements. This meeting is not to take the place of the annual convention which is to be held this year at Colorado Springs, Colorado, August 23-26.

New Members

Chester L. Schneider is an active member of staff, Central Alaskan Missions, Inc., at Glenallen, Alaska. A graduate of Wheaton College, holds M.D. from Jefferson Medical College.

William R. Scott, medical missionary under The Santal Mission of the Northern Churches. Has M.D. from College of Physicians and Surgeons, Columbia University. Present address: 7618 11th Ave., Brooklyn, N. Y.

Richard C. Smith is a pediatrician at U.S. Naval Hospital, Oakland, Calif. Has B.S. from Bates College, M.D. from Boston University.

Standish J. Watson is a physician in private practice at 1680 Oak Park Blvd., Walnut Creek, Calif. Received his training at University of California.

Harry R. Zemmer is a medical doctor with Berean Mission, Inc. Has B.A. from Western Michigan College, M.D. from University of Michigan Medical School. Present address: 1422 24th St., Port Huron, Mich.

William J. Barnett serves as missionary doctor at Kola Ndoto Hospital, Shinyanga, T.T., East Africa, with the African Inland Mission. He has degrees from Wheaton, Columbia Bible College, and M.D. from Albany Medical College.

Marion O. Boehr is a medical missionary in Nellore, South India, at the American Baptist Mission Hospital. A graduate of University of Washington and M.D. from Northwestern University Medical School.

Gilbert den Dulk is a practicing physician at 125 Orange Ave., Ripon, Calif. He received A.B. degree from University of California, M.D. from U. of Calif. Medical School.

Craig L. Frantz, 719 N. East St., Anaheim, Calif., an Associate Staff Member of Young Life Campaign, and also a manufacturer of precision tools. He is a licensed minister, has B.S. degree from Pennsylvania State University.

Charles W. Hertzler, Bergton, Va., is owner and operator of the Green Valley Clinic. Received his M.D. from University of Virginia.

Lowell E. Jennings is Medical Superintendent of Christian General Hospital, Vapi, Surat Dist., B.S. India. Serves under the Wesleyan Methodist Church of America. Has B.S. from Indiana U., M.D. from Indiana U. School of Medicine.

P. C. Krikorian is a doctor of medicine and surgery at C.M.C. Hospital, Beirut, Lebanon. Received his M.D. from American University of Beirut.

Holger C. Langmack, 4909 Arkansas Ave. N.W., Washington, D. C., serves in a character education program in the Washington, D. C. public schools. Took engineering training at University of Copenhagen, has M.A. from Maryland University.

Paul G. Lenhart, physician and surgeon, 103 E. George St., Arcanum, Ohio. Received A.B. degree from Wittenberg College, M.D. from University of Cincinnati.

Franklin A. Olson, 1107 Marion St., Oak Park, Ill.; a graduate of Wheaton College, has M.D. from University of Illinois College of Medicine. Serves as physician and surgeon, and instructor in Missionary Medicine at Moody Bible Institute.

Robert M. Page, Associate Director of Research for Electronics, U.S. Naval Research Laboratory. Has degrees from Hamline University and George Washington University. Home address, 5400 Branch Ave. S. E., Washington 23, D. C.

Dwight M. Slater is a missionary under the Conservative Baptist Foreign Missionary Society. Has B.S. from Michigan State College, M.D. from Wayne University College of Medicine. Now in language study in Belgium, preparing for service in mission hospital in the Belgian Congo.



Clarence H. Rutt, Jr. is a medical student with B.S. degree from Eastern Mennonite College; present address, 2103 Delancey Place, Philadelphia, Pa.

Lauren I. Seaman is a physician and surgeon at 2212 W. 110th St., Chicago, Ill. Has B.A. degree from Northwest Nazarene College, M.D. from University of Alberta.

Roy K. Smith is Chief of Tuberculosis Service, Veteran Administration Hospital, Excelsior Springs, Mo. Has M.D. from University of Kansas, served as medical missionary from 1911 to 1950.

Bradford E. Steiner, medical missionary at Landour Community Hospital, Mussoorie, U.P., India, under the Evangelical Alliance Mission. A graduate of Wheaton College, received M.D. degree from University of Illinois College of Medicine.

Jacob F. Swartzendruber, Assistant Professor of Education at Goshen College, Goshen, Indiana. Holds A.B. and M.A. degrees from State University of Iowa.

Edith M. Villanueva serves as doctor of medicine at Iloilo Mission Hospital, Iloilo City, Philippines. She received her M.D. from College of Medicine, University of the Philippines, took post-graduate work in obstetrics and gynecology in various hospitals in the U.S.A.

Malcolm D. Winter, Jr., is a Fellow of the Mayo Foundation, Rochester, Minn. Wheaton College granted him B.A. degree, Northwestern University the M.D. Home address, 1917 Main St., Miles City, Montana.

Carlton O. Wittlinger, registrar and head of social sciences, Messiah College, Grantham, Pa. Took undergraduate work at Messiah and at Taylor University, received M.A. from University of Buffalo and Ph.D. from University of Pennsylvania.

Paul W. Yardy, missionary doctor and director of Umri Mission Hospital, Umri, via Yeotmal, M.P., India, under the General Missionary Board

of the Free Methodist Church of North America. Has B.S. from Seattle Pacific College and M.D. from University of Colorado.

Scripture Press Quarterlies on the Bible and Sciences

A series of lessons on the Bible and science for high school level pupils are now off the press. Published by Scripture Press of Chicago, they contain a statement to the effect the "Modern Science and Christian Faith" is a "valuable source of supplemental material on these lessons."

The teacher's quarterly, to go along with the lesson, were written by Dr. William J. Tinkle and the author of the student lessons is Mr. Henry Jacobsen. The lessons will cover astronomy, geology, botany, biology, evolution, psychology, anthropology, chemistry, physics, medicine, and archeology.

Letters

EDITOR: Just a note to say that I certainly appreciate the Journal with its very interesting articles. The articles by Dr. Irving W. Knoblock have been exceptional. I would like to see a major article in the Journal produced by him.

The September issue contained a "very badly needed" article on the Cataclysmic Theory. My hat goes off to Mr. Stoner and the editor for writing and publishing such an article. If this article would be put in pamphlet form in the future, I would appreciate a generous supply. . . .

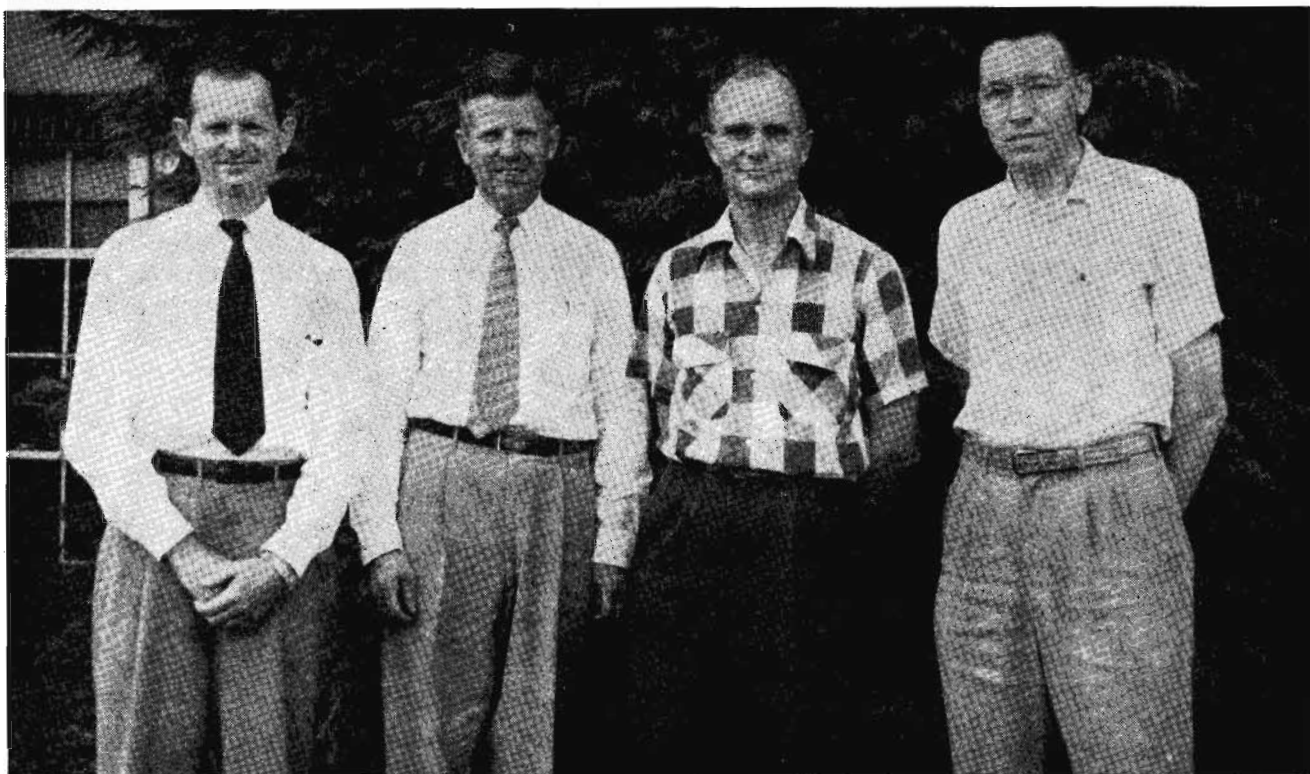
Sincerely yours,
Donald Lantz

University of Minnesota
College of Education
Minneapolis 14, Minn.
September 24, 1954

ASA Members and Wives Present at Annual Convention

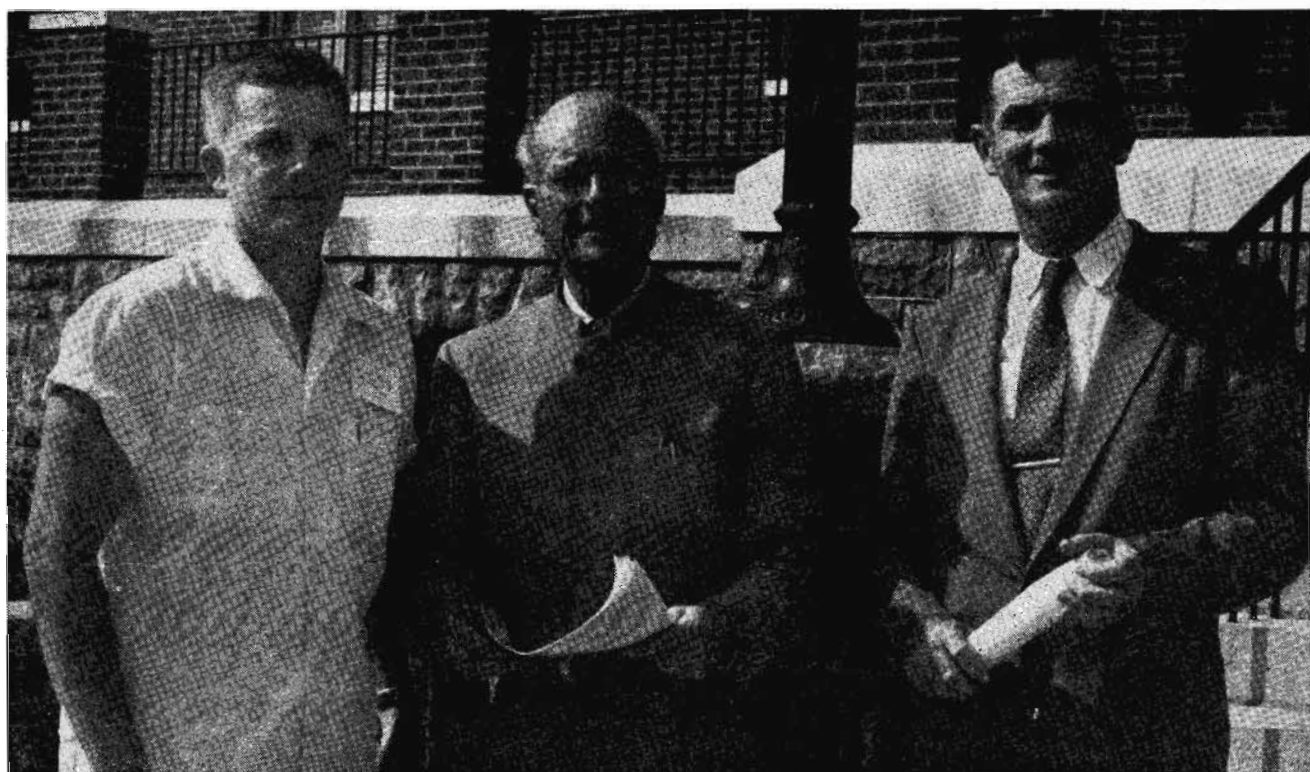
Pictured on preceding page is the group of ASA members, wives and guests who attended the annual ASA Convention at Eastern Mennonite College, Harrisonburg, Virginia, in August 1954. Identifying numbers and names are as follows:

- | | | | |
|---------------------------|-----------------------------|-------------------------|------------------------------|
| 1. Roy M. Allen | 17. Joseph Maxwell | 33. Malois W. DeGraaf | 49. Walter R. Hearn |
| 2. Paul Bender | 18. Fay Grassmyer | 34. James R. Miller | 50. James H. Kraakevik |
| 3. H. Harold Hartzler | 19. Robert G. Ziegler | 35. Donald E. DeGraaf | 51. Dean I. Walter |
| 4. Russell L. Mixer | 20. Wallace A. Erickson | 36. C. W. Taylor | 52. Philip B. Marquart |
| 5. Delbert N. Eggenberger | 21. N. L. Peterson | 37. Hiram Stoltzfus | 53. Mrs. Cramer |
| 6. W. Roger Rush | 22. Paul G. Culley | 38. Mrs. H. C. Langmack | 54. Mrs. R. E. Holsington |
| 7. Mrs. Roger Rush | 23. Beatrice K. Peterson | 39. H. C. Langmack | 55. Mrs. Delbert Eggenberger |
| 8. Chester K. Lehman | 24. Willard R. Henning | 40. Richard Culp | 56. R. E. Hoisington |
| 9. Marlin Kreider | 25. Clarence R. Rutt | 41. | 57. Herbert Minnich |
| 10. | 26. Fae Irene Cowperthwaite | 42. Wayne F. Frair | 58. |
| 11. Paul DeKoning | 27. Irving A. Cowperthwaite | 43. Howard Cramer | 59. Frank Cassel |
| 12. Paul Peachey | 28. William J. Tinkle | 44. Russell Maatman | 60. |
| 13. Karl Turekian | 29. Mrs. William J. Tinkle | 45. Maurice L. Bates | 61. Mrs. Frank Cassel |
| 14. Mrs. Paul DeKoning | 30. Joseph Hoover | 46. Robert M. Page | 62. June Hearn |
| 15. J. H. Shrader | 31. Virgil Stoltzfus | 47. Robert L. Wilson | 63. Ira E. Miller |
| 16. Mrs. Fay Grassmyer | 32. Paul Gast | 48. George H. Fielding | 64. Wilmer Landis |



EXECUTIVE COUNCIL

Left to right: H. Harold Hartzler, Hendrik J. Oorthuys, Russell L. Mixter, Delbert N. Eggenberger. (Fifth member, Brian P. Sutherland, not on picture.)



PROGRAM COMMITTEE —NINTH ANNUAL CONVENTION

Walter R. Hearn, Maurice T. Brackhill, Roger Rusk

Science and Biblical Miracles

RUSSELL MAATMAN, PH.D
Haddonfield, N. J.

The concept of Biblical miracles is not accepted by unbelievers, many of whom have vague reasons for rejecting Biblical miracles. There is no doubt that unbelieving scientists attempt to be carefully logical in this matter. Unbelieving scientists say that the concept of Biblical miracles is contrary to natural science and that one must accept either miracles or natural science—not both. They unhesitatingly reject miracles and accept natural science. But these unbelieving scientists go even one step further: they accuse scientists who are Christians of being inconsistent when they hold to both Biblical miracles and natural science.

Now, this is a serious accusation and we as believing scientists must meet this challenge, for we must hold to Biblical miracles. If we let them go, the Christian faith is lost and the unbeliever knows it.

Christians have given two types of answers to this accusation. These will be discussed and because they seem to be inadequate a third answer will be proposed.

Miracles Outside of Physical Law

Some Christians have admitted that the Christian position is apparently inconsistent. Cannot God violate the natural law He creates? For these Christians the objection of the unbeliever to this position in this matter offers no problem at all.

One objection to this answer is that we are put in the position of saying that God performs two *basically* different kinds of acts. It is as if He created two natural laws which apparently conflict. We cannot prove He did not create two laws, but it does seem that making such an assumption weakens the Christian position. It would be well not to be satisfied with such an assumption.

Another objection to the idea that miracles are violations or suspensions of natural law is that this idea omits the relationship there is between miracles and the spiritual world. Many miracles are interactions between the created spiritual world and the physical world. Consider, for example, the appearance of the angel to Balaam when Balaam was on his way to the encampment of the Israelites. We must consider the appearance of the angel to be a miracle, for it certainly was an event outside of natural law as man knows it. It would be difficult to conceive of a definition of miracle that would not include this event. But this event took place in both the spiritual world and the physical world. The two worlds met at this point. At this point in time the events in one of these worlds could not be understood without presupposing the existence of the other world. At this time Balaam's donkey spoke. Was not this also a miracle? It is not foolish to assume this was not also an interaction

between the spiritual world and the physical world? By some power we do not see, the animal spoke. In the same way there are many Biblical miracles which are interactions between the spiritual world and the physical world. We neglect this interaction when we say miracles are violations of created natural law.

A third objection to this view of miracles is that defining a miracle as a violation or suspension of natural law is necessarily a vague statement. No part of natural law we know is ever known with certainty, and therefore this definition is also vague, inexact, and unscientific.

Miracles Within Physical Law

Other Christians give a second general answer to the charge of the unbeliever that Christians are inconsistent when they hold to both Biblical miracles and natural science. According to this answer miracles actually do occur within physical law. There is therefore no conflict.

Probably some Biblical miracles can be explained—more or less—by modern science. But some Biblical miracles can never be explained. Certainly Christians are not going to say that the appearances of angels were evidences of some physical law we do not know. For we know that angels are spiritual beings. Even if we consider only other miraculous events, it seems to be far too much to expect that these hundreds of miracles can be understood by man. One need only think of reviving the dead, multiplying food and healing the sick with a word—sometimes without the prior knowledge of the sick person.

But there are Christians who say that while miracles occur within physical law, miracles are only statistically improbable events. This view utilizes the fact revealed by modern physics that exact prediction is impossible. Miracles are unexpected, but not impossible, events. This view is not tenable because the approximate number of these "miracles" can be calculated and it is far too small to account for the frequency of Biblical miracles. Few consider seriously this concept of miracles.

A Real Natural Law

While Christians must accept Biblical miracles, there seem to be difficulties with either important Christian view concerning them. More than a mere definition of Biblical miracles is needed. A better concept of natural law must be obtained.

If true natural law is the law that, in the scientific sense, "predicts" events in creation, then when we speak of true natural law it should refer to *all* of creation—to the created spiritual world as well as to the physical world. This grand natural law that only God can know is *the* simple, all-embracing law of

which man's generalized laws are but feeble prototypes. This true law correlates all events in both worlds—miraculous and non-miraculous. Because there is this true law the scientists must eventually fail in his efforts to unify all events into one grand scheme.

Accordingly, this definition of miracles is suggested: *Miracles are events that evoke amazement in observers, that are not understood by any observer, and that teach men—among other things—that God knows more about natural law than do these observers.*

Refuting Attacks

With this concept of Biblical miracles we may be able to answer some attacks unbelievers make on them. First, the charge that we are inconsistent in accepting both natural science and miracles is not a correct charge because we have a broader view of creation than do unbelieving scientists when they refuse to go beyond the "universe". In short, we have a different starting point. We show unbelievers that we cannot discuss with them this matter of inconsistency because we do not have the common ground that is necessary for discussion. (Of course, the ultimate starting point upon which Christians and unbelievers differ is not the question of the existence of Creation as the Christian knows it, but the existence of the Triune, creating God as the Christian knows Him. For the present discussion it is sufficient to consider that Christians and unbelievers diverge on the matter of Creation). Christians are not guilty of inconsistency, but unbelievers are guilty of narrowness.

A second type of attack that is made on Biblical miracles is that given enough time, science may be able to "explain" all of them. Then, says unbelievers, there will be no more miracles to talk about. Christians know that the Bible indicates some miracles cannot be understood by man. But what about the other miracles? Is the number of miracles decreasing? Science does occasionally explain Biblical miracles in terms of modern concepts. But, according to the definition of miracles that is proposed here, even such events remain miracles. The important thing is that God showed *observers* He knew more about nature than they did. If modern science finds a fish large enough to swallow alive a man like Jonah, that does not mean the event is not a Biblical miracle. It is no less astounding to us than it was before the large fish was found. We know now that when Moses sweetened the bitter desert water at Marah with a tree, he might have been using an ion exchange resin. There is no reason that our wonder at the event should therefore be at all diminished, or that we should not consider it a miracle. If we marvel less at such an "explained" event than at an "unexplained" miracle, we show that we forget that basically—as scientists well know—all events are unexplainable. As man

probes deeper and deeper into nature, he realizes more and more that he can never have basic knowledge about any system he studies. For example, the scientist can never answer the ultimate "why" of matter. When God shows us a miracle, He shows us that He does have the ultimate "why". He causes miraculous events and non-miraculous events. Is God any less a providential God in the incident at Marah because we now know of ion exchange resins?

A third type of attack on Biblical miracles is made by the skeptic, David Hume. He said that if he observes an event occurring one thousand times one way, and one time another way, he will reject the lone observation. It might be a faulty observation. Thus, the majority wins. Miracles therefore will always be rejected. If the events in the physical world were isolated from anything else that existed, Hume would have a strong argument. But his argument contains within it an assumption which rules out interaction between the spiritual world and the physical world. Christians say some spiritual power—angelic or more directly the hand of God—kept Peter from sinking when he walked on the water. If we assume that the hand of God never does such things and that there are no angels, then we agree with the argument of Hume. We would then say people were deceived when they thought they saw Peter walking on the water.

With the concept of miracles that has been proposed we might attack the ideas of at least some unbelievers. We know that God has created a spiritual world because He has shown us some miracles. Balaam knew that there were angels because he saw one. Some unbelievers deny the possibility of miracles but do believe there is a created spiritual world. Very likely close examination in individual cases will reveal such persons accept the created spiritual world because they also—in some way—accept at least one miracle. The existence of the created spiritual world and the existence of Biblical miracles stand or fall together. Christianity cannot be accepted or rejected piece-meal; existence or non-existence of miracles and the created spiritual world is one example. Christians would do well to recognize the absolute exclusiveness and complete otherness of Christianity.

Unbelievers insist we be consistent. We should ask this of them.

Conclusion

The Christian believes God created the spiritual world and the physical world. Some events are common to the two worlds. These are miracles. The complete description of all the events of the two worlds is the grand, true natural law that only God can know. This creation of God is harmonious and no events conflict with true natural law. Miracles are an integral part of God's creation.

Reflections on Sociology and Evangelism

FRANK E. HOUSER, M.A.
Wheaton College, Wheaton, Illinois.

There are some concerns of sociology which evangelicals may well consider. It is also true, no doubt, that sociologists might well consider certain concerns of evangelicals. However, since we evangelicals should be concerned first with the beam in our own eye let us see what we can learn before we begin to teach.

The first thing which comes to my mind is that the very object of the study of sociology—society—is in disrepute with many evangelicals. Attitudes of indifference, apathy, and hospitality are not uncommon. Certain beliefs about the world, about separation, about Christ's second coming, and about how to be spiritual cause many to dissociate themselves as much as possible from their community—to say nothing of state, national, and international affairs. PTA, Kiwanis, Community Chest, Family Service Association, Gray Ladies, Red Cross, Hospital Auxiliaries, and other organizations interested in mercy, justice, kindness, order, and friendship here and now are regarded by many Christians as unworthy objects of attention when compared with the Messianic kingdom then and there. Or, many of God's children sacrifice the opportunity of legitimate service in the community to their desire to keep themselves pure and undefiled in this present world. "After all," protest one of these Christians, "Don't these organizations have card parties?" Naturally then, if one suggests the study of justice and mercy at the international level he is greeted somewhat contemptuously with the question, "Surely you don't mean the United Nations?"

Whatever the merits of the arguments it is my observation that, as yet, a positive social action program is not the social strategy of modern evangelicalism. And, what is more significant, non-evangelicals seem to be doing most of the thinking, writing, and acting on the issue of the Christian in society. Also it should be noted that evangelicals are not writing as much as non-evangelicals on the allied themes of nature of the world and the nature of human nature. Perhaps when evangelicals know society as well as they know the Bible and theology some leadership in the field of ideas as well as action may be expected.

This discussion of the Christian's relationship to society provides a sort of background for a second area of concerns in social science which is of interest to Christians. It is the area of social problems. I did not begin this paper with social problems because society is not mainly "disorganization." Emphasis rightly belongs on the normal processes of order which characterizes our everyday relations in the home, in school, in the shop, in the office, in the church,

and over the back fence. If we were more concerned with community organization we would have less to face in community disorganization. Nevertheless, we must face the immediate undesirable situations so as to rectify the intolerable, and also plan for the future to prevent the intolerable. Parenthetically, some evangelicals will help in dealing with the results of social problems—for example, treatment of delinquents—but their interest wanes in the long term preventive approach.

The social problem areas where much is being done by sociology, and which could be noted by evangelicals, is in racial discrimination, delinquency, and marital discord.

Considerable effort is being expended by all the social sciences in race relations. Paradoxically, few people would admit to being prejudiced. It's in the specific situations such as allowing Negroes membership in your church, welcoming them as neighbors, having one as a college roommate, and integrating them into public schools where prejudice can be seen. We must learn as Christians to love in the specific rather than the abstract. And, we must learn further that there is not love without justice. Considerable help in race relations can be found in anthropology, sociology, and psychiatry. For example, the belief in natural Negro inferiority, was blasted by anthropology some years ago; the belief that prejudice is caused by ignorance is corrected by sociology—sociologists are relating group antagonisms to such non-rational factors as the quest for status and power; and the belief that the violent hater is a sick man is being confirmed by psychiatrists as they see many race bigots severely disturbed emotionally. Good reports are coming from some areas of racial invasion where poor community morale, poor physical appearance of housing, rising delinquency rates, and excessive mobility were corrected by careful, extensive social organization of the community involved. Block by block organization plus adequate communication and information really helps.

Turning to the problem of delinquency, social research indicates thus far that the cause is far from simple. It should be noted immediately that there are different types of delinquency which call for different casual explanations. In some types of delinquency the home is of crucial consideration. In other types the home situation must be viewed against the background of a disorganized community. Again, the beliefs or values of a culture may be decisive in shaping behavior in a delinquent direction. In his book, *The Lonely Crowd*, David Riesman points up in fascinat-

ing fashion the movement through the years from inner directed character structure in America to other oriented character structure, so that today there is a strong note of "groupism"—the sort of thing which psychiatrist Lindner in recent *TIME* magazine article uses to explain the mad dog packs of adolescent criminals. The autonomy of the person is submerged in the inordinate quest to "belong at any cost." By the way, Riesman's recent book, *Individualism Reconsidered*, expands the theme of autonomy in such a way as to have relevance for Christians concerned about "self-denial". In fact, Riesman's work has relevance for many facets of our American culture—from football to free enterprise.

The third social problem I should like to mention is marital relations. The home is, of course, a prominent topic for evangelicals. Sermons are numerous on "The Christian Home"—what it is and what it does. My complaint in this area is not so much about what is preached, but what is not preached. The place to begin, of course, is in courtship. To hear some fundamentalists this is simply a matter of falling in love. Students of the family are quite opposed to the idea that "romance" is the basis for marriage. Several key factors in good marital adjustment are religion, socioeconomic background, education, life aims, personality characteristics, and beliefs about such matters as birth control and insurance. Studies verify that careful preparation for marriage which avoids various types of "unequal yokes" is more and more necessary in our society.

Marriage requires something other than passivity. The number of Christian marriages which have drifted into unhappiness, separation, and even divorce is unknown. But, I suspect it's higher than we'd like. Matters like budgeting, sexual adjustment, disciplining the children, and recreational activities don't come naturally. Of course, they don't pose insuperable problems, either. What is often needed is wise and competent counseling both before and during the marriage. Marriage counseling is a wonderful field for the Christian. It's a pity there are so few in it.

Moving away from social problems to two final concerns of social science with some relevance for evangelicals, the first is the work being done in the area called group dynamics. The findings here are

valuable in every area of human relations. The type of things I have in mind is the buzz session, the circle seating, the discussion group, the socio-drama, and so on to facilitate both learning and problem solving. These are seen in use in the classroom—why not in the church? A recent issue of *Theology Today* has an article by Wedel which discusses this matter. One example of application would be Sunday school teaching and learning which could be improved by changing the structure of the group from lecture-listener to leader-participant. Every teacher and preacher knows that a portion of his most brilliant discourses goes by unapprehended or misapprehended by his audience. Learning involves active participation of the student in the learning process. Not many students will do this unaided.

The last concern of social science—and indeed of all branches of learning—which I should like to mention is the subject of controversy. I'm not sure that social science can tell us much here. It may, along with all of education reduce ignorance which causes so much disagreement. It may even tell how to approach controversial issues with a minimum of heat and a maximum of light. But, I have a conviction that with all this help final truth on many matters is still in the future. In fact, the varying and opposing views often illustrate how truth does not reside in one person or school alone. It may be right at this point to welcome controversy as a mechanism for eliciting various sides to a question. I do not mean the ego assaulting viciousness to which dialectics may degenerate. Nor do I mean developing controversy simply as an end in itself. We have far too many mavericks who take an opposite view simply to be different. As I see it, disputation is only to arrive at truth.

We would all benefit by a cogent ethics of controversy. Social scientists, society, and evangelicals alike are in strong need of a Christian ethic of love and humility along with forthrightness. This is especially true in a time when the free citizens of America are beginning to hear and heed demands for regimentation of what they can read or believe. The danger to democracy—including freedom of religion is obvious. What also needs to be stressed is that evangelical Protestantism's vitality is in danger if either disagreement or love is abandoned.

A Reading Course in General Anthropology

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IV. Prehistoric Man

Returning once more to the "bibliographic comments" which this series started out to be, we take up a selection of general works which will introduce the reader to the subject of fossil man. In the last installment a discussion of the relation of evolution to the study of anthropology was attempted. This section will be devoted only to a brief survey of the literature introductory to this division of general anthropology.

We are only interested here in those books which seem to be anthropologically rather than more strictly biologically oriented. However, there are a great number which deal particularly with non-human evolution or the dynamics of evolution in general which should at least be mentioned. Among the best in English in recent years are G. S. Carter, *Animal Evolution*, (see bibliography for complete references.) Dobzhansky, T., *Genetics and the Origin of Species*, (3rd ed.), Huxley, J. *Evolution, the Modern Synthesis*, Jepson, Mayr, and Simpson, *Genetics, Paleontology, and Evolution*, Mayr, E., *Systematics and the Origin of Species*, Moody, P. A., *Introduction to Evolution*, Simpson, G. G., *The Major Features of Evolution*, (a complete re-writing of his *Tempo and Mode of Evolution*, and Shull, A. F., *Evolution*, 2nd ed.

* * *

G. G. Simpson's *The Meaning of Evolution, a Study of the History of Life and its Significance for Man* has been called "without question, the best general work on the meaning of evolution to appear in our time."¹ The book is divided into three parts, "The Course of Evolution," "The Interpretation of Evolution," and "Evolution, Humanity and Ethics." Christian philosophers will have the most fun with Part III as Simpson really goes out on the proverbial limb to comply with the specifications of the Terry Lectures (of which it was the twenty-fifth series) ". . . on Religion in the Light of Science and Philosophy," delivered at Yale in November, 1948.

Part I describes the record of prehistoric life in some detail and in an extremely reliable and authoritative manner. Part II contains excellent chapters on some of the major problems such as orthogenesis, extinction, the concept of progress, and others, with a brief history of the evolutionary theory itself.

Simpson's style of writing has enlivened the literature on evolution by achieving a straightforward approach coupled with a facility for controversial communication of the most difficult theoretical problems. In addition he also stresses the practical problems

not always discussed by most authorities. In a recent paper he is

"appalled at the extent of restoration indulged in by the anthropologists, some of whom seem quite willing to reconstruct a face from a practical cranium, a whole skull from a piece of the lower jaw, and so on. Of course this temerity is induced by the great popular interest of the subject and the fact that fragments do not impress the public. Then too the worst examples are in popular publications and are not likely to impress the professionals, but still. . .!"²

He then discusses the principle of morphological correlation with reference to legitimate reconstructions but concludes that "they cannot restore a whole animal from one bone unless they already have a complete skeleton of the same animal."³

* * *

Turning now to the treatment of fossil man and evolution in the text on physical and general anthropology, we find that at the present point in the impossible attempt to keep publication abreast of investigation, they can all be placed in one of two classes: pre-Pitldown and post-Pitldown! We will not take time here to discuss the significance of the discovery of the Pitldown fraud since it has been treated in an earlier number of this journal.⁴ None of the four or five best texts on physical anthropology have been written since it was discovered. So this is, after all, a rather superficial distinction and cannot be considered as mitigating the authority of the literature in any way.

Two new general works treat the Pitldown finds in light of the recent discovery. They are Mischa Titiev's *The Science of Man, an Introduction to Anthropology*, and William Howells' *Back of History, The Story of Our Own Origins*, both published last year. Kroeber's *Anthropology*, (1948) and Beals and Hoijer's *Introduction . . .* (1953) both treat the subject in line with the present interpretation though published before the discovery was made. Melville Herskovits' new general text is expected any day from the publisher, and Hoebel is revising his *Man in the Primitive World*. Both of these will no doubt put the Pitldown matter once and for all into its proper place. An analysis of the original British Museum report may be found in the *American Journal of*

Physical Anthropology for March, 1954, in an article by J. S. Weiner and K. P. Oakley entitled "The Piltown Fraud: Available Evidence Reviewed."

* * *

Perhaps the most up-to-date treatment of the whole picture of prehistoric man is Ashley Montagu's in the new edition of his *Introduction to Physical Anthropology* (1951). He represents the fullest account of the Fontchevade skulls found in 1947 which constitute the best evidence for pre-Neanderthal modern man. Dated in the third interglacial, more than 10,000 years old, these finds make up the basis of an excellent discussion of the antiquity of modern man, in relation to the Neanderthal race which, with so many more primitive characters, appeared considerably later.

Because of the strengthening evidence for *Homo sapiens* well back in the Pleistocene, Kroeber wrote, in summing up the field of Anthropology for the past fifty years,

"That great mysterious X of a generation ago, the famous 'missing link,' has been quite outmoded. The story leaves him stranded and forgotten, and its path is all the more intricate and dramatic for it."⁵

Hooton's famous and popular text, *Up From The Ape* 1946, remains probably the most well rounded and widely used physical anthropology text, a testimony to the fame and erudition of its late author. The sections on racial description and on anthropometry are much fuller than Ashley Montagu's.

William Howells, who has taken Hooton's place at Harvard, writes simply and humorously, aiming to present the essence of his subject in rather broad outline without indulging in the detailed qualifications necessary in more technical works. His *Mankind So Far* (1944) is probably due for revision, but still remains the most elementary physical anthropology book available.

For treatment of the Pithecanthropus and Sinanthropus finds Franz Weidenreich's *Apes, Giants, and Man*, (1946) is still the best outside of his more technical accounts in the periodical literature. Weidenreich was intimately familiar with all of the details concerning the morphology of the Java and China material and, except for a neglect of geology and an insistence on morphological dating, his *Apes, Giants, and Man* remains the most authoritative statement available for the general reader. Weidenreich was of the opinion that "not only the living forms of mankind but also the past forms—at least those whose remains have been recovered—must be included in the same species."⁶ Pithecanthropus Erectus represents "true man and a creature far above the stage of an ape."⁷ One wonders just what his reaction would

be today to some who lump both Pithecanthropus and Sinanthropus into the same species with the South African Australopithecinae, calling them *Homo trasvaalensis*.⁸

* * *

There is as yet no substantial agreement on the interpretation of the Australopithecinae, the man-apes of South Africa. Ever since the early reaction against Dr. Robert Broom's claims of Pliocene date for them, the various attempts at explaining the finds have ranged between placing them as ancestral to man and connecting them taxonomically with other early hominids on the one hand, and on the other, claiming that they were too recent to be ancestral to man, and therefore interpreting them as an extinct family of apes. This is the old controversy between morphological and geological dating again. For a competent presentation of the evidence for the former position, see T. J. Robinson, "The Genera and Species of the Australopithecinae"; for the latter case, K. P. Oakley, "The Dating of the Australopithecinae of Africa."

The true position of these controversial finds may not be decided for years. One thing that is sure is that their relation to humans will depend, first of all, upon the dating—Pleistocene or Pliocene?—and secondly, and infinitely more important, upon the finding of any associated cultural remains, whatever the morphological facts may be. Perhaps until that time, our approach should be that of Simpson who, after mentioning the inadequacy of the data on human origins concludes:

"It is highly probable that they will always be inadequate because they must remain ambiguous in the sense that they will be consistent with more than one possible interpretation. Our task, then, is to take inadequate data, to reject interpretations that definitely do not fit these data, and then to judge the probability of the usually still multiple possible interpretations that remain."⁹

* * *

For prehistoric man in North America the best reference is H. M. Wormington's *Ancient Man in North America*. This subject cannot be adequately comprehended today without reference to Carbon-14 dating since all of the prehistoric remains in this hemisphere are well within the range of this, the most reliable dating technique for material less than 50,000 years old. Libby's *Radiocarbon Dating* should be in the hands of all those who have occasion to study the prehistory of this country.

* * *

The only adequate treatment of human paleontology by a Christian scholar is Marie Fetzner Reyburn's section of "A Christian View of Anthropology" in *Mod-*

ern Science and Christian Faith. A brief discussion of the age of man, theories of human evolution, and other problems relevant to the Christian student precede a more thorough analysis of selected fossil remains. Particularly important is her examination of what is known of the geology of the Pithecanthropus and Heidelberg sites, showing conclusively that geological chronology, not morphology, must be the criterion for age determination.

* * *

Next installment: readings on Race.

FOOTNOTES

1. Bernard Mishkin, in The New York Times, December 4, 1949.
2. Simpson, 1951, p. 57
3. Ibid., p. 58
4. Vol. 6, No. 1, (March, 1954) p. 29
5. Kroeber, A. L., "Anthropology" in *Scientific American*, Nov., 1950, reprinted as "A Half-Century of Anthropology" in Kroeber, 1952, p. 142.
6. Weidenreich, 1946, p. 3
7. Ibid., p. 27
8. See Robinson, 1954, p. 181
9. Simpson, 1951, p. 55

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Weather Balloons In Varied Sizes and Colors Used by Weathermen

EDITOR'S NOTE: The following release from the Information Services Office, Air Weather Service, United States Air Force, Washington 25, D. C. should dispel many of the flying saucers stories.

Washington, D. C., Sept. 8—Often mistaken for flying saucers, approximately 800 balloons per day are released in the United States to measure weather elements aloft. Balloon observations are taken four times a day from almost every government and military weather station.

The smallest balloon is approximately one and one-half feet in diameter and is used to measure the heights of clouds (ceiling) above an airport. These balloons are either black or red and expand to a diameter of two to three feet before bursting at an altitude of 15,000 to 20,000 feet.

Two types are released daily by weather stations to obtain data used in computing the winds aloft. The smaller balloon measures two feet in diameter and expands to a diameter of three and one-half feet before bursting. The larger balloon is three and one-half feet in diameter and usually bursts when the balloon has expanded to a diameter of six and one-half feet. This occurs at from 45,000 to 50,000 feet in the air. They both are colored white, red or black and when released at night carry a small white light for tracking purposes.

Uncolored translucent balloons used to carry radiosondes (a radio transmitter which sends pressure, humidity and temperature data) measures six feet in diameter before release and expand to a diameter of 26 feet before bursting about 80,000 feet. The radiosonde and red parachute are attached to the balloon by a 100-foot line.

At frequent intervals larger balloons are released to obtain data for specialized atmospheric research purposes. These balloons are generally referred to as "Skyhook" balloons. The skyhook balloon is plastic and non-expandable. It is designed to carry a payload of 80 pounds at least as high as 100,000 feet. The balloon measures 73 feet in diameter and is 129 feet long.

Toward An Understanding of the Decline of the West

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EDITOR'S NOTE: This paper was presented at the Ninth Annual Convention of the American Scientific Affiliation, Harrisonburg, Virginia, August 24-27, 1954. Almost simultaneously it appeared in the Pamphlet Series entitled "Concern," whose publishers have kindly granted permission to reprint the paper in somewhat revised form.

The European slant of the paper is explained by the fact that the author was working and studying in Europe at the time the paper was prepared.

The western world was ushered into the present century by the optimistic philosophy of the evolutionary progress of the processes of history. Science and technology had overcome so many of the incongruities of human existence that it seemed to be only a matter of time until the paradise of which men in all ages had dreamed would become reality on earth. What philosophers proclaimed seemed confirmed on every hand by the solid achievements of the human genius. The ascent from the lower to the higher which in the philosophy of medieval scholasticism had required at every transitional stage a transcendent creative intervention was now seemingly being achieved by the pulsations of immanent energy.

Today, at mid-century, that same western world grovels uneasily beneath the ruins of its utopia, trembling with fear or even worse things to come. In Europe this fear seems to have produced among many a general apathy toward life and the future, while in America one sees symptoms of panic and malaise. The difference in reaction, however, is only that Europe has already progressed further along the road of disillusionment. For the confidence of Europe was shaken already by World War I—indeed she had premonitions before that time of terrible things to come—while only with World War II and the Korean conflict did the terrible truth come home to America. Furthermore, Europe has experienced the catastrophe in her own flesh and blood while America knows it only theoretically in terms of the terror she herself produced at Dresden and Hiroshima. Some European observers detected the first tremors of fear in America between 1945 and 1950 when her conscience showed the first signs of uneasiness because of the bomb she had unleashed and the realization dawned that the achievement of world order lay beyond her powers, a realization that the stalemate of Korea, America's first unwon war, can only deepen.

The spirit of despair found its European prophet already during the interwar period in Oswald Speng-

ler, the despondent German philosopher who published his dirge for western civilization under the title, *Der Untergang des Abendlandes*—The Decline of the West. His theories gave expression to the despondent feelings of many intellectuals who believed that the culture (civilization) of the West had run its course. World War II has increased the speculation as to the significance of the crisis, particularly in Germany, who out of her own experience knows perhaps better than any other western nation its dimensions. In widely different circles today's conditions have come to be regarded as the end stage of secularization and dechristianization. By contrast the Middle Ages now appear as the age of faith. People yearn for the security of cultural unity and harmony which medieval times offered, as can be seen in the resurgence of the Catholic Church in many areas and in the pilgrimage into her fold of certain people, particularly European poets and prose writers. Parallel to this is the swing toward orthodox, the rise of a strong liturgical trend, and the self-contradictory reawakening of confessional consciousness in many quarters within the Protestant world. Indeed one can note striking similarities to the restorative and romantic period which followed the French Revolution and the Napoleonic Wars.

The interpretation of this crisis in western civilization varies greatly according to the viewpoint of the observer. Catholicism as the exponent of cultural unity under the tutelage of the church naturally regards it as the consequence and the final stage of man's revolt against God, against His church, and against Christ's vicar on earth. Where they are not engulfed in the humanist stream the reaction of the official" Protestant bodies often does not differ greatly from the Catholic, since they too pose as the spiritual guardians of society. The secular humanist* viewpoint arrives at opposite conclusions, for it denies that the Middle Ages were ever as thoroughly Christian as the proponents of Christian culture would have it, and would at any rate never assign religion as important a role in the affairs of men as it is accorded by the religious

*The term "humanist" is used in this paper to refer broadly to the various modern streams of secular thought, beginning with the Renaissance. These streams of thought manifest in varying degrees the following characteristics: they repudiate special revelation and/or subordinate its authority to reason and empiricism, and seek to explain man and the universe in terms of immanent energy and processes. Thus in the name of "immanence" they stand in opposition to transcendental or supernaturally revealed truth and are actually "man-centered" or "humanistic."

traditions themselves. A third viewpoint is that of "evangelical" Christians, who find themselves divided, however, between the approach of the Catholics and that of the humanists. Some would agree with the former that the process of secularization is responsible for the crisis, but would view the whole in the perspective of an intense eschatological schematization, while others would agree strongly enough with the humanists that medieval society never had been thoroughly Christianized and consequently would feel that today's crisis in a stricter sense is not immediately the secularization of world culture.

It is a common characteristic of all schools of thought, however, to hold that evil forces threaten to reduce to ashes at a single blow the accumulated cultural heritage of painfully progressing centuries. All seem to agree that an old epoch in human history has passed but that a stable foundation for a new one has not yet been laid. Nevertheless the majority of men cling tenaciously to the remnants of the old order, determined to preserve its privileges and unable to face the sacrificial demands of a new unformed era. Indeed no one, whatever his persuasion, can contemplate with complacency the outbreak of new wars or revolutions. Alone the communist votaries of revolution relish the thought of catastrophe, and in western countries few of them realize what they worship.

II

It is the purpose of this paper to examine briefly this belief that the West is in a state of decline and to suggest elements essential to a Christian attitude toward the problem. To analyze western history and civilization in this light is a stupendous task, as the widely differing conclusions of men who have spent their lifetime studying it amply testify. I make no pretense of having begun to master the mass of material that needs to be studied, to say nothing of the inscrutability of the ways of God in history. Indeed, preoccupation with questions as these whose larger dimensions lie beyond human comprehension can lead to futile speculation which will deflect the Christian from his main responsibility to live and proclaim the Gospel within history, content to leave the larger meanings to God. It can tempt men to seek for human remedies and to rely on man-made devices, forgetting that human destiny ultimately lies in the hand of God. Furthermore, all historical writing and all cultural analysis is of necessity selective, interpretative, and insofar subjective, so that salient facts may completely escape notice. Finally, one must note the errors which historical consciousness has brought into western thought and even into the church, such as philosophies of history which have defied the process of history itself. But bearing in mind all these and other dangers, we cannot escape the problems which our time thrusts upon us. Without understanding, in some fashion at

least, the age in which we live we cannot hope either to survive as vital Christian churches nor yet to fulfill the task of Christian witnessing. This paper, however, is not based on any exhaustive or systematic study; it simply constitutes reflections made along the way, and is offered as a contribution to a discussion which I hope will be continuous and will help to give us the orientation which we need to fulfill the responsibilities of our own generation.

III

The term, "decline of the West" presupposes a previous level of attainment now in the process of disintegration. The "West" which is here meant is European civilization primarily (Europeans would here prefer the term "culture") but including also its American extension, which civilization is the creation of medieval Catholicism and of Fifteenth-to Twentieth-century humanism. While now one, now the other, is given the major credit for the total structure, depending on the viewpoint of the observer, in either case it seems clear that not only the civilization itself but also the presuppositions upon which it rested are threatened. An examination of these two great cultural forces will therefore be necessary.

a. Medieval society as the "*corpus christianum*." Historians have traditionally divided western history into three periods: ancient, medieval, and modern. While the roots of Europe go deep into the ancient past, and consequently have fed on various traditions, particularly the Greek and the Latin, Europe as we know it today is seen as the creation of medieval times. After the ancient empires one after the other were broken up, the Romans emerged shortly before the birth of Christ to achieve the imperial political unity of the Mediterranean world. Local religious and cultures had failed and a great process of eclecticism and synthesization had set in. The failure of the Greek gods to protect the great civilization of Greece had discredited them and led to a decline in the importance of religion as a factor in the affairs of men. Thus Christ brought His message to the world at a time when an optimum of transnational stability had been reached, while the resistance of competing religions was remarkably low.

In the mind of Christian historians, this coincidence of the coming of Christ with a maximum of political stability and a minimum of cultural resistance constitutes in part "the fullness of the time" of which the prophets predicting the coming of Christ had spoken. Nevertheless the tide was soon to turn inasmuch as the religious indifference lasted only several centuries, for not only did the Roman emperors now seek to unify the empire by means of an imperial religion such as Mithraism, but the third and fourth centuries of our era were marked by what Professor Marrou of Paris has called a new religiosity. New credibility

was attached to the intervention of the gods in the affairs of men, after several centuries marked by skepticism. But now, once Christianity had gained a real entree among the Mediterranean peoples, demanding as it did the ultimate loyalty of its adherents, a conflict with the absolute demands of the empire and its gods was inevitable. This led to persecutions till Constantine with political astuteness recognized in Christianity the greatest spiritual force in his empire and reversing the policy of suppression, enlisted its support in the imperial achievement.

Constantine is usually regarded as a turning point in the history of the church and of the West, but the actual compromise of which he is the symbol was a process that far superseded his span of life, a process in which the church and the empire as universal concepts became coterminous. Nevertheless, when the barbaric storms descended on Rome, Christianity was still a vital force, sufficiently autonomous that when the empire fell, it survived, despite the accusation of pagan Romans to the contrary that it had caused the downfall of the eternal city. As Augustine, who became the leading theologian for the post-Constantine centuries, fended off the pagan accusations he set forth the transcendent *civitas dei*, and by a slight misinterpretation the Roman church as an institution identified herself with the *civitas*, with the millennium of Christ, and for a thousand years medieval Europe lived under the illusion that the millennium could be realized within history.

Until the fall of Rome (A.D. 476) the chief cultural forces at work in the empire had been the Greek, i.e., Hellenist, and Latin traditions, now in interaction with Christianity. The entrance of the Germanic peoples into the Latin world brought the fourth great component of European civilization into the picture. In a remarkable fusion of cultures these uncivilized peoples coming from the north were to inherit the political tradition and responsibility of the empire while at the same time yielding to the cultural superiority of the Mediterranean peoples. It was as the Mediterranean culture, particularly the "Christianized" Latin, was carried northward across the Alps and assimilated by the Germanic tribes that modern Europe was born. The original heirs of the Roman tradition were the Franks who occupied finally the area between the Loire and the Rhine rivers. But on into the heart of modern Germany in thousands of small clearings in the dark Teutonic forests courageous missionary monks planted sanctuaries and slowly chiseled away at the raw blocks of savagery to create eventually the modern European spirit.

The classic theologian of this Europe was Thomas Aquinas. On the skeleton of Aristotelian philosophy he erected a magnificent structure of thought, founded upon the unified authority of natural and revealed

theology, embracing the totality of human experience, and able to absorb within itself all the incongruous and contradictory in the world of men. In this great system the lower was only a preliminary stage to the higher. Every line strove forever upward as did architectural lines of the Gothic cathedral which this great culture produced. No state was so lowly, no function so menial, that it had no place in the providence of God, to enhance His eternal glory. On all the disharmonious, the imperfect, the suffering, the church as the extension of the incarnation radiated by way of the sacraments the Eternal Presence. Even kings and emperors were thought to have been brought under the reign of Christ and the tension between church and world had disappeared. Day and night monastic voices and the incense of worship ascended in anticipation and imitation of the multitudes that shall assemble around the throne of God to sing His praises eternally. At the head of this great divine-human society stood the vicar of Christ, representing and safeguarding His seamless robe. The *corpus christianum* was indeed the most magnificent dream ever dreamed by man.

The actual accomplishments of this great system were impressive, both religiously and culturally, and remain so to this day. In the first place, the cults of paganism were successfully eradicated, despite remnants which remain to this day, and monotheism was everywhere established. "Christian" theism became the world view of the West, and the religious consciousness affected profoundly the political concepts of the time. Christian theology, literature, symbols, and liturgy were introduced, and once the Holy Scriptures were in Europe a recurrent eruption of Gospel freshness was assured. In the second place, Christianity brought not only a new religion but a new ethic. However imperfectly its ideals may have been realized in practice, no one in Europe could escape its influence. The religious unrest of the late Middle Ages and the flourishing of mysticism, both of which were the soil from which the Reformation sprang, testify to the success of medieval Catholicism in educating the Germanic conscience. In the third place, the impulse of Christianity as it fused with the undifferentiated genius of northern Europe produced a new culture in some respects superior to any culture previously known. Indeed it was the spirit of Christianity that eventually pulled Europe from the "Dark Ages" which succeeded the collapse of the ancient Roman empire.

Nevertheless the medieval vision, the *corpus christianum*, was doomed from the outset. In the first place, the Christianity which penetrated north of the Alps was no longer pure. Already the mere fact that it was carried by monks who, despite the Christian heroism that characterized their work, were an aberration of the Gospel ideal, could only mean that a distorted social ethic reached the pagan tribesman. In

the very process of evangelism itself important concessions were made to the pagan spirit. So Pope Gregory the Great (590-604) instructed the great Benedictine missionary Augustine, who was sent to the Angles, to simply sanctify by means of holy water the heathen sanctuaries already in existence so as to win the pagans more readily. Even their festivals were to be transformed into Christian feasts: "For if a few outer pleasures are left to them they will be more quickly attracted by the inner joys. For to cut off everything from these hard hearts at one blow is without doubt impossible. He who wishes to scale a high mountain can do so only with slow steps, not by leaps." We cannot here discuss the question of missionary technique with illiterate pagan peoples. It is important only to note the discolored Christian message which reached the Teutonic world. More disastrous than all else, however, was the debasement of Christianity which stemmed from the Constantinian compromise, for not only had state and church become united, not only was Christianity now falsely captivated by and identified with the culture of the occident, but it had become a mere means to mundane ends. Throughout all human history natural religion has always been the highest cohesive and integrative force in any society and culture, as the numerous studies of "primitive" peoples made in our century have shown. This is precisely what Christianity is not. As Jacob Burckhardt, the great Swiss historian, points out, the Christian religion, in contrast to the polytheistic cults of classical paganism, "was and is not a cult consecrating a national culture but a transcendent faith in a future redemption. It was hostile to the pagan gods of nature and culture, as it must be hostile to the idols of modern civilization." But empirical Christianity was now no longer primarily the redemptive intervention of God, but a new means to cultural and political ends, subservient to the caprice of the ruling caste.

In the second place, the basic presuppositions of the *corpus christianum* were false. The Gospel speaks to men who are morally free to reject its claims. Everywhere it recognizes that some will accept while others will reject its message. And while the universality of its intent and of the final triumph of Christ is nonetheless upheld, the Gospel nowhere visualizes a permanent peace between "church" and "world," nowhere predicts the final harmonization of all that is incongruous in human experience except eschatologically, and nowhere promises the redemption of this aeon in toto. Thus Jesus had to declare Himself: "I am not come to send peace but a sword." To set up an ecclesiastical and political regime that presupposed that the totality of mankind had been embraced within the Christian community could therefore never correspond with reality.

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In the third place, the *corpus christianum* even as an ideal was possible only as long as the theistic world view was universally acknowledged. Men might not necessarily accept the claims of Christianity existentially—indeed the recognition of supernatural reality is not a uniquely Christian insight—but as long as the mythological world view of medieval man, which was in part a continuation of pre-Christian theologies, persisted, there was no escape from the external demands of the church-dominated society. Once, however, modern discoveries disenchanting or demythologized the world and man began to feel himself autonomous, and free from dependence on deity, the whole structure was undermined. The only recourse open to the *Corpus* at this point was to suppress coercively every dissent and cultural heterogeneity. But this was a basic contradiction of the essence of the Christian faith which is at heart voluntaristic. Furthermore this confusion of a sort of natural or instinctive theism with the revealed Christian faith could only obscure the distinction between the providential and redemptive activities of God.

In the fourth place, the attempt of the church in medieval times to direct the whole of society necessarily plunged her into ethical compromise. The governance of unredeemed men requires measures and means that are fundamentally at variance with the essence of the Gospel. In the position of ethical compromise the Christian "salt" lost its "savour," the church her prophetic otherness that would have enabled her to rebuke and transform the abuses of society. All too soon she became so imbedded in the *status quo* that those who wished to rise higher came into conflict with her totalitarian claims and were mercilessly dealt with as heretics.

Finally, Christianity in Europe has never been too much more than a veneer, for the true Christians have always been in the minority. Many of the tribes were originally converted (read baptized) en masse. Beneath the new Christian traditions the old pagan stream continued to flow, ever ready to reappear under favorable circumstances. The men of the Third Reich could still establish contact with the old Germanic religions, ridiculous as it may seem. It is remarkable how frequently one finds the religious comprehension of the common people who have been "churched" for centuries limited to a vague, almost naturalistic, theism, which knows God primarily as Providence. Superstition is still widely prevalent, and many smaller traces of paganism still remain, such as certain festivals or practices as runic symbols on farm buildings or local traditions as in Westphalia the "Heidenweck" heathen bread rolls) used on Mardi Gras. That elements of the pre-Christian past should persist is neither surprising nor of itself disastrous. Indeed this demonstrates unmistakably the great task which the Gospel must undertake to transform us poor

pagans into true sons of God. The error arose, however, in the assumption that the entire culture could be or had been Christianized, for Christianity now ceased to be prophetic.

b. *The modern humanist world view.* Despite the great achievements of his society the lot of late medieval man was not a very happy one. Furthermore, by the late Middle Ages the creative force of the *corpus christianum* had been largely spent and new ideals began to stir his imagination. Whether or not the re-emergence of pagan impulses in the spirit of western man as heralded by the Renaissance is to be attributed to the failure of the medieval church is not easy to determine and must at any rate remain an open question in the present discussion. In an article published several years ago in the German weekly, "Sonntagsblatt," published by Bishop Lilje, Nicholas Berdyaev asked: "Why did not the superior religious insights of the Middle Ages, and superior they were to both the ancient and the barbaric traditions, produce a Christian renaissance?" In his answer to his own question he pointed out that Christianity had introduced two principles into the experience of man: (1) the eschatological-messianic principle in which Christ has entered history, thereby ending the concept that history repeats itself in endlessly reproduced cycles, and revealing the purposeful movement of history toward a final goal, and, (2) the principle of freedom in history as over against the older idea of determinism. Indeed it is this freedom that makes for movement in history as such. And it was the assertion of this freedom that made the Renaissance possible. Why then did Christianity not achieve a renaissance? Because, according to Berdyaev, Christianity had also introduced a conflict between these two principles, for the Middle Ages tried to realize the kingdom of God by coercion, thus denying to man that very freedom which the Gospel would effect.

The analysis of Berdyaev seems valid, for the doom of nations is always related to the self-betrayal of the people of God. At the same time, proceeding as we are from a voluntaristic concept of Christianity, we can hardly consider the church entirely responsible for the rise or fall of a civilization nor can we assume a priori that the church could have retained the spiritual leadership of the modern scientific movement. To the extent, however, that the church employed non-Christian means in the suppression of dissent and presumed to dictate coercively the conduct of men who had rejected the central presuppositions of Christianity or of her claims, she herself drove men to revolt, once they discovered the hoax. In any event, the rediscovery of the ancients, the expansion of the geographic horizon of the late medieval world, the discovery of scientific experimentation and of certain elementary principles governing the functioning of the universe, which were not known before, introduced a spirit of doubt and inquiry into the western

mind that was to grow steadily till the twentieth century, and to destroy the theistic world view to which western civilization originally owed its existence. The full-blown humanist world view, however, in certain respects differed little from the Thomist concept which preceded it. For modern humanism, whatever its particular philosophical expression, likewise visualized the attainment of paradise within history. As larger and larger areas of life were brought under rational control, as the old frontiers of human self-determination receded rapidly, and as humanity (presumably) evolved steadily upward it seemed only reasonable to believe that in time everything incongruous in human experience would be resolved and all the discordant would be harmonized. The difference was that where the *corpus christianum* looked to the transcendent, the supernatural, for fulfillment, the humanist structure relied on the immanent, the natural. For Darwin and Thomas both there was a gradual ascent from the lower forms of life to the higher. But where Thomas held that every transition required a supernatural creative act, Darwin held that transition from the lower to the higher forms would be realized through immanent or innate energy. And if Thomism was far preferable to Darwinism because of its deference to the transcendent, i.e., to God, it shared in part with the latter its fatal misunderstanding of the provisional and contingent nature of the present aeon.

By the early sixteenth century people already dared to appeal to non-Christian authorities in their criticisms of existing conditions, religious as well as secular. Since then the world has become disenchanted. Where medieval man saw demons at work, modern man has discovered bacteria. Where medieval man saw the justice of God striking down the wicked, modern man sees the consequences of the violation of the laws of "nature." Where medieval man wrote off the unknown as lying enshrouded by the supernatural, modern man sees only unexplored vistas of the natural and the physical. Whatever inspiration the modern ideals of human dignity and freedom have drawn from Christian sources, modern man somehow feels that he owes the conveniences and comforts of modern life more to the empiricism of the doubting humanist than to the faith of the believing Christian. The pioneers of the physical sciences as Copernicus, Kepler, and Galileo were neither impelled by unbelief in their research nor led to it by their discoveries. The opposition of the church, however, both Catholic and Protestant, identified her with the forces of reaction, and more and more men found the Christian faith incompatible with the facts of science. The telling blows or medieval bigotry and religious intolerance were not dealt even by the Reformation to say nothing of Catholicism, but by the secular Enlightenment. It was Voltaire who took up the cause of the persecuted Huguenots and nourished the spirit of tol-

eration that went into the French declaration of "The Rights of Man and the Citizen." Even if in this particular case the Catholics were persecuting Protestants, the later were no better. In 1541 the Protestant government of Bern sent the nobleman Naegli to Paris to protest against the French government's suppression of the Huguenots at the same time that her own prisons were overflowing with Anabaptists. The reasons for persecution were identical.

Throughout the eighteenth and nineteenth centuries and on into the twentieth the humanist stream continued to swell, as emancipated moderns reveled in their new freedom and power. Philosophers were busily hewing out new gods in place of the old One who had been left behind. First came the apotheosis of reason, then of evolution and progress, and finally, of science and the machine. And the church, accustomed for a millennium to identify herself with the social regime in power, with the *status quo*, strove to maintain her privileges, either by political power as in Catholic countries or by adaptation in Protestant countries.

The grandeur of the humanist dream is not to be denied. That modern autonomous man, ostensibly in his own strength, "subdued the earth" to a degree never approached by a culture exclusively devoted to the supernatural gives him an unassailable dignity. And yet when all the accounts are rendered the picture changes profoundly, for not only was the humanist giant far more indebted to Christianity than he ever realized, but he misunderstood the basic human limitations and moral weakness even worse than medieval Catholicism had ever done.

(1) Humanism's indebtedness to Christianity. The modern humanist tradition has often been sternly critical of social injustice to which even Christians had all too often quietly acquiesced. We have already noted that religious tolerance in Europe was more or less a product of the Enlightenment. One might also point to Karl Marx and his associates who proceeding from a militantly materialistic world view drew the attention of the world to the abuses of British industry during the first half of the nineteenth century. And yet a closer examination of the great crusades for social justice reveals, particularly in England, that whatever secular idealists may have had to say about social injustice, the men who actually accomplished the slow and painful tasks of reform drew their inspiration largely from Christian sources. The men who finally killed the English slave trade and who drove the exploitation of woman and child labor from English factories had roots deep in the Methodist revival, many of them being lay preachers or sons of ministers. After World War II American labor unions joined the co-ordinating council of American relief agencies which worked in Germany, unions

which actually represented millions of workers, but it was the churches who did the main job. In a different way, the same thing might be said of the eighteenth- and nineteenth-century Continental prophets of human autonomy, whatever their specific philosophic persuasion. It was very often their orthodox or Pietist upbringing that prevented their drawing practical conclusions from their intellectual revolt. Immanuel Kant's ethical sternness is not primarily an organic part of his philosophy. It is much more a philosophic adaptation of a stern Scotch Presbyterian and German Pietist upbringing that had formed his early life.

(2) The misunderstanding of humanism. The basic error of humanism, whatever its philosophic or scientific garb, has been the supposition that the unlocking of the mysteries of the universe, the gradual rationalization of life, and the supposed evolutionary ascent of the race would enable man himself to overcome the incongruities of human existence. It failed to see that technological and scientific or even philosophic progress, even though seemingly unlimited in potential development, could never alter a single strand of man's moral fiber, that, to the contrary, such progress increased the potential for evil as much as the potential for good, that the fact of evil (and not only finitude) lies at the heart of the human enigma, and that consequently civilized man no more possesses the key to Paradise by the mere virtue of his knowledge than did his tribal forefathers.

It took the catastrophic wars of the twentieth century and the revolt of the oppressed to unmask the folly of the humanist dream. Not only did the wars in their external effects destroy the belief that by inherent forces man moved steadily upward, but the monstrosities of the totalitarian states revealed fully the autonomous man who was no longer inhibited as some of his forerunners had been by an inbred piety. The men of Dachau demonstrated in unmistakable terms how the fully autonomous human animal beneath a godless sky conducts himself. And when the nation which ostensibly was the real citadel of Christian virtue, something of a modern counterpart of the *corpus christianum*, unleashed on a defenseless city of women and children the first atomic bomb the disillusionment of modern man was well-nigh complete. Meanwhile the theoretical basis of scientism was equally shaken. The series of discoveries initiated by Albert Einstein's first formulation of the theory of Relativity in 1905 has gradually shattered the scientist's "absolute" laws of causality or determinancy, of the space-time categories, and the concept of the "closed universe" objectively measurable. We have thus witnessed in our generation the default of the humanist dream, a crisis perhaps equal in profundity to the failure of the medieval religious world view at the dawn of the modern era.

IV

Our discussion to this point has dealt with two world views as having created and informed western man: the medieval Christian and the modern humanist. What has been the contribution of Protestantism? For the average Protestant the Reformation is an event in Christian history second in significance only to the inception of Christianity itself. In terms of potential Christian achievement, of the break-through of the evangelical experience in Europe, of the shattering of Catholicism's false authority, and of the re-postulation of the authority of the Word of God and the community of the believers, this viewpoint seems well justifiable. To the Catholic, however, the Reformation appears as an episode in the process of the secularization of modern culture. A good illustration of this viewpoint is Alois Beck's introduction to his *Messerklärung* (Molding bei Wien, 1949), a German handbook to the Latin mass for the general public (Beck is the initiator of the contemporary Catholic Bible-reading campaign in German-speaking Europe), where he describes the secularization of the west as follows: "For about 500 years the Church has been defending herself against a world which has been becoming increasingly ungodly; the development began with the Nominalism of William of Occam; in the time of the *Reformation* a part of the Christians said 'No' to the Church and separated itself from the pope; in the time of the *Enlightenment* there followed a 'No' to Christ, while outwardly men still held to a 'world architect' (Deism, Free Masonry), who was, however, no longer concerned about anything; during approximately the last century this apostasy developed its logical last step: to a 'No' to God, in whose place now some creature was defied: Technology and Progress, Blood and Soil, Power and Gold. Further from God it is not possible to go; we are thus standing at a *spiritual turning point*; the modern age with its rational darkness is dying."

In the realm of culture and social ethics I am increasingly inclined to concur with the Catholic view of the Reformation, though I draw far different conclusions of the case. The Reformation as such is difficult to isolate sufficiently from parallel movements and impulses in secular areas of life to permit an adequate analysis. As we have seen, Beck suggests that its roots lay in the rise of Nominalism, a view shared by many others. It will be remembered that Luther's early theological development lay under the nominalist influence of William of Occam through the latter's disciple, Gabriel Biel of Tübingen. Others have seen the roots of the Reformation primarily in the Renaissance, which was largely true in the case of Zwingli, and quite generally so inasmuch as the humanists introduced the study of Scripture in the original tongues and on the basis of Scripture dared

to criticize existing religious conditions even counter to the authoritarian claims of the church. Again one might emphasize the importance of mysticism in late medieval society or the geographic and scientific discoveries which served to weaken the authority of the medieval church.

Whatever we decide about the origin of the Reform, we can regard it as a new and genuine answer to the Gospel by the Germanic conscience no longer able to accept the Catholic evangel. German Protestant scholars tend to regard the Reformation as the "acute Germanization of Christianity," as the release of a new genius within the Christian tradition. And certainly any Protestant would agree that Luther's rediscovery of justification by faith was indeed a triumph of unending significance over centuries of accumulated distortion. The same could be said of the other two cardinal principles of the Reformation—the supreme authority of Scripture and the universal priesthood of believers. The Reform indeed brought a new day for the Christian Church.

Why then is the Protestant claim of the significance of the Reformation not justifiable? To me the simple answer seems to be that it mistakenly identifies the actual development of the Reformation with the personal experience and the ideals of the isolated Luthers. The unique thing about the Reformation was not that Luther's experience was so revolutionarily new—there had been religious awakenings before—but that it coincided with other latent forces, particularly nationalism which needed only the detonator that Luther's message provided in order to be set in motion. Already at the Council of Constance, a century earlier, the seamless robe of Christ had been rent by the new national gods. Now in the sixteenth century that part of the Protestant message which caught the imagination of rulers and people alike was the proclamation of freedom, these from the Roman hegemony, those from the burdens of peasantry. Hence the Reformation can hardly be called a popular revival. On the local level it meant little actual change. Governments had to legislate on matters of simple mortality, sometimes to take the wind out of the sails of the Anabaptists the "left wing" of the Reformation, which demanded a more radical "break" with Catholics, since on the popular level a quickening of the conscience did not result. Luther's later years were enveloped in gloom because the reform had failed to produce the piety and morality among the masses for which he had hoped.

The new spiritual impulses which the Reform actually generated were choked out by the old concept of cultural homegeneity, by the social order of the *corpus christianum* which persisted and was accepted by the leading reformers. Thus the Reformation failed to sense and to challenge the central error of Catholicism with regard to the essence of the church and her rela-

tionship to society. Despite new formulations which were designed to remedy some of the evils of the system, the basic presupposition of medieval times—that the borders of the church were coextensive with the entire society, while membership was effected, not by personal decision and commitment but by external coercion and clerically administered sacrament—was too deeply imbedded in the subconscious stream of European thought to be seriously challenged and thus became the basis for the modern Protestant social ethic. In the religious struggles and wars which followed in the century after the Reformation it was not the persecution of believers by the “world,” but the rivalry of two systems both laying claim to inclusive totality. Wilhelm Dilthey, a German philosopher of the turn of the century, in his analysis of the world view of the Renaissance and the Reformation, concludes that the Reformation was not a restoration of primitive Christianity but rather a further development of the medieval universal ideal. It would be erroneous, of course, to lay the blame for this entire development of the reformers alone, particularly since at points they sensed the problem and were prevented by factors beyond their control from taking appropriate action.

It must be recognized, however, that despite the failure of the Reform to free the church from cultural assimilation, it was by its very nature far more adaptable to the modern world than Catholicism could ever be. Indeed its basic flaws dare not close our eyes to its tremendous service to modern man. It has been the spiritual home of countless millions in many generations who could never have accepted the claims of Catholicism, and has been marked by a spontaneous and genuine piety rarely achieved by the latter. But its real vitality owes largely to subsequent developments such as Pietism and the English revivalist and free church movement, made possible, however, because the control of Catholicism was broken in the sixteenth century. Nevertheless Protestantism's confused and ambiguous social philosophy and social ethic, its divorce of objective justification from subjective transformation, and the absence of a central authority which alone can maintain a (Catholic-like) system of inclusive totality, make it particularly vulnerable to the ravages of humanism. Protestant professors and clergymen were often in the front ranks of the prophets of humanism, sawing off the very limb on which the Reformation rested, while Catholicism at least maintained a state of tension with “modernism” and “liberalism,” particularly since the publication of the papal “Syllabus” of modern errors in 1864. But precisely this adaptability to the total society was another form of the erroneous attitude of the *corpus christianum* and has become the Nemesis of Protestantism. Since its attitude toward the world was assimilative rather than prophetic, “responsible” rather than

catalytic, it too became imbedded in all the incongruities of the *status quo*. If we inquire then as to the spiritual blessings of Protestantism we can say they were tremendous, but if we inquire, as in this paper, as to its degree of basic Christian restitution, we are driven to the dismal conclusion that it simply failed, at least in its original form, to sense the fatal social error of Catholicism and to effect an essentially renewed approach. In this analysis we are therefore justified in subsuming it under the contribution of medieval Christianity in as far as it remained “orthodox” and under that humanism in as far as it was secularized.

V

The crisis of the mid-twentieth century, if this analysis is correct, is then to be sought ultimately in the realm of metaphysics. The theistic world view which from the Constantinian period forward had provided the subsoil of western culture was challenged by the fifteenth-century Renaissance and received its first shattering blow in the French Revolution. From this blow it has never fully recovered but has had to give way increasingly to essentially immanentistic world views of humanism, which held out the hope of human fulfillment through the impulsion of innate energy. Today the triumphant humanist dream has in turn likewise defaulted, and has demonstrated unmistakably that it has rested on false premises. This failure or rejection of both the spiritual premises of western civilization constitutes the crisis of our time. To be sure, powerful remnants of both views remain and will be influential in time to come. Indeed it would be most difficult to reduce all western thought into one category or the other in any clear-cut fashion. This essay is merely an attempt to find something of a dominant characteristic in the subconscious presupposition of our time and is not directly concerned with the formal philosophies themselves.

Is the West, then, in a state of decline? If we accept the ideal either of medieval Christianity or of humanism, it seems that our answer must be a gloomy yes. Even if we accept neither, we are driven to the conclusion that the collapse of both the transcendentalist and the immanentistic value systems threatens to pull down the whole civilization with them. The West has lost the cohesive which holds the parts together to construct a meaningful whole. She is like a monster from whom the soul has departed but whose body continues to flail about in madness. The American reaction to the (Russian) Communist challenge is the reaction (e.g., “McCarthyism”) of a people uncertain of its own faith. It is the reaction of a culture which can return neither to the theism which gave it birth, nor yet to the humanism which nursed it to maturity. Consequently modern man is not in the dilemma of two undesirable possibilities but simply at a dead end. There is of course a political dilemma between East and West, but the struggle between the communist

and the western systems is mostly an echo, an Indian summer, of the two world views we have just described, the West of the transcendentistic medieval in as far as she claims to be Christian), and the East in so far as it is Marxist) of the immanentistic modern. But the masses, even when forced to choose one or the other of these two ideologies, sense instinctively the hollowness of both claims. In any event, western culture today needs a new metaphysics which it has not yet found. How and whether a new foundation for our present civilization will be found would be hazardous to predict. Humanly speaking, greater violence than what we have yet experienced seems inevitable, particularly because of similar upheavals of even greater proportions in the Orient. The prospect of a life and death struggle between closed cultural systems as the present alignment of East and West seems to predict is ample cause for men's hearts to fear.

VI

To characterize our time only in terms of "decline" would be to commit anew the errors of the *corpus christianum* and of humanism. More than this, it would be the sin of unbelieving pessimism, of the faithless steward who buried his talent in a napkin, for the crisis of our day demonstrates once more that the justice of God is tempered with mercy, that out of the marred clay He fashions new vessels. For the collapse of these two great systems of semitruths will enable men to shift their point of departure from within the inclusive natural community to within the (gathered) religious community, to see more clearly than perhaps at any time since the Constantinian compromise that God works redemptively among men by way of the heaven, by the gathering of those who respond to His regenerative overtures, and that the incongruities of human existence and of the social order can reach final solution only as the regenerative process comes to maturity eschatologically. The impossibility of identifying the Christian community with any natural community or culture is being sensed increasingly, and scholars as G. J. Heering and Herbert Butterfield from various viewpoints are beginning to interpret the facts of Christian history accordingly. (See e.g., Herbert Butterfield, *Christianity and History*, London, 1950)

It will be helpful to examine a bit more closely the "decline" of the West in this light. In the first place, it has shattered the myths of inherent progress. While it would be premature to speak of a popular revival, to reckon with transcendent reality is no longer the mark of naivety or bigotry. In the second place, the "decline" of the West and the emergence of the Orient has broken the monopoly which the West has exercised over Christianity for centuries. The failure of the church to domesticate the whole of western culture has forced even the "Volkskirche," the mass

or established churches, to become at least to a degree, gathered communities. Hence the West is no longer synonymous with Christianity. Meanwhile the new Christian communities of the Orient have developed a genius of their own and are exercising an increasing influence in the world church. This was brought home to the West with great forcefulness by the presence and voice of the large numbers of Orientals at the ecumenical conferences at Oslo (youth) in 1947 at Amsterdam in 1948, and at Evanston in 1954. Bishop Stephen C. Neill, reported, after a trip to Africa, that it is entirely within the realm of the possible that native African Christians may yet share in a re-evangelization of the West. In short, these developments emphasize in a new way the universality of the church of Christ and her transcendence over particularist cultures and social groupings. In the third place, this cultural disentanglement of the church is ethically salutary. Humanly speaking, a widespread turn to pacifism is hardly in the offing, but nevertheless the incompatibility of war with the Christian ethic is being felt increasingly. The same might be said with regard to divisions in the church. In the fourth place, there are encouraging trends even culturally. In philosophy there is some revival of realism, despite the ascendancy of existentialism, which still belongs to the nominalist tradition. The failure of the scientific structure built on nominalist assumptions is bound to renew and increase the interest in realism. The upper reaches of scientific thought have likewise been profoundly shaken. The discovery that the absolute laws of the physical universe are after all only relative (see above, p. 28) has led scientists to interpret "indeterminacy" as actually meaning "creativity." It was this discovery, a Greek chemistry professor told me recently, that enabled him to accept the doctrine of grace as a new intervention of God outside the "laws" of nature. More familiar to us is the development of neo-orthodoxy in theology, though not a full return to evangelical faith. Its most important feature in this context is its rediscovery of the transcendence of God and of the corresponding inadequacy and dependence of man. While none of these developments alone are likely to turn the tide of the West, they might well become major contributory sources for a genuine renaissance.

VII

This general analysis leads to several concrete suggestions as to the Christian course of action in the time ahead.

1. Viewing the "decline" from within the gathered Christian community rather than within the natural community of the *corpus christianum* or of humanism leads to the conclusion that the crisis of the West is to be sought in the dilution of Christianity itself rather than in the secularization of culture in general. The latter is only a consequence of the former. Jesus call-

ed the Christian the salt of the earth. The non-Christian can know God only within the limits of natural theism. Greater insights come indirectly through his observation of those who know God supremely through revelation, in our own age, through the Christians. It is when God in Christ becomes discredited by the unworthiness of those who confess His name that the God in Nature no longer seems inexorable. When Christians cease to be Christian and to fulfill their role on the plane of redemption, that other minister of God on the plane of preservation, the state, most readily oversteps his bounds. When those who know Him no longer reveal an awareness that "it is a terrible thing to fall into the hands of the living God," those who don't know Him need not worry about getting acquainted with Him. Preaching in the "new era" must be pre-eminently Christological and Christocentric. Hand in hand with a rediscovery of the church as a gathered community must go a rediscovery of the distinction between God's work in the realm of providence and His work in the realm of redemption so that the church may be truly the church. Christians dare not confuse pious sentiments arising from experiences of natural theism with a vital faith in Christ. Obviously it is not the Christian task to denounce or judge such experiences but only to promote the truth.

Futhermore, viewing the "decline" of the West from within the New Testament concept of the gathered community, one is led to the conclusion, as we have already noted, that since Constantine the time may never have been more opportune for the church to disentangle herself from worldly alliances. Under the totalitarian powers, earnest Christians have been driven to the catacombs. In the West the forces of secularism have become so powerful and the number of people outside the pale of the church so great that the church can no longer presume to speak for the whole in the sense of the Constantinian compromise. World events will thus drive many Christians and Christian groups to rediscover their true relationship to the world. Admittedly, the opposite seems true in America for the moment, where many see the world struggle developing between the two supposedly opposite forces of Christianity and Communism. This indeed is the great temptation of American and other western Christians. Yet even this situation will not change the minority position of Christianity in the culture of the West and is at any rate offset by the emergence of vital Christian minorities in other world cultures.

2. Next to evangelism, the most urgent task within the Christian Church—even more urgent than the much more publicized effort for ecumenicity—is the re-articulation of the Christian social ethic, of the relationship of the Christian and the church to the social order. Indeed one might well ask whether that is not essentially the evangelistic task of the day, the proc-

lamation of a Gospel which reunites in the true New Testament sense, faith and works. The Catholic Church has retained her mistaken medieval vision in that respect, except as tactical modifications have become necessary and as we have seen, Protestantism has not developed an adequate and unique social ethic of its own. In theory the "free churches" should be uniquely fitted for such a task of witnessing. But they, too, have often shared in the general decline of Christianity, sometimes in adherence to dead traditions, sometimes in the confusion of religious individualism with political individualism, sometimes in the relegation of religious experience to the realm of private piety. Such an approach of course presupposes a readiness to undergo the pre-Constantinian church-world tension and conflict.

3. Apologetics should seek to employ the discoveries and developments of science to which we have referred rather than to refight the battles of an earlier liberalism that is on the wane. Evangelical Christianity, based as it is upon God's self-revealing and redemptive acts in history because of man's fallen state, has done too little to relate its message to God's original creative charge to man to "subdue the earth." Too often its defense against the onslaught of militant secularisms or atheisms is conducted from a pre-Copernican platform. The church seldom succeeds in combining her conservatism vis-a-vis the attacks of wordliness with a forward look in the things of time which must change. Too often her fight for the faith degenerates into a reactionary fight for the privileges of the social *status quo*. The major task of Christian apologetics today is thus the proclamation of the special revelation of God in Christ in all its radical finality, but in terms which recognize empiricism within the realm of nature as being implicit in the divine charge to man to "subdue the earth." But in such an attempt to fight an advance-guard battle in the proper understanding of empirical science, we will need to be on guard constantly lest we fall into a new form of the old error of making science the touchstone of revelation or the still older one of supposing that a mass revival could somehow redeem the entire social order of the present aeon.

4. It appears that particularly in Europe, and to some extent in America, the creative days of the Christian clerical caste and the institutional church are over. Even the real effectiveness of modern mass media of communication in the evangelistic effort seems to be diminishing. The Church of Christ is essentially a pneumatic fellowship that expresses itself concretely in the Christian brotherhood, there where the "two or three are gathered." This fellowship is a fellowship of persons and is thus by its very nature what sociologists call a "primary group." The church can never assume the "secondary" character of the depersonalized urban society. It therefore seems clear that evangelism will make real progress among the industrial masses, as

well as among other dechristianized groups in our society, only if the church will regain the personal mobile lay character which has characterized all her truly creative periods, above all, the first centuries of the Christian era. The emphasis must be shifted from the salaried professional and the huge Gothic sanctuary to the man to man evangel of the simple self-supporting believer who shares the struggle of the common man.

5. There needs to be a recovery of eschatological comprehension, not speculatively but "existentially." We need to understand anew the ways of God in history. True, men have failed, but even in the midst of that failure the kingdom of God is moving toward fulfillment. Excessive preoccupation with attempts to read the signs of the times regarding future events cannot but dim our understanding of the here and now. Unhealthy speculation about the eschatological calendar can even be a way to bury the talent He has given. On the other hand, we need desperately a recovery of genuine eschatological expectancy, of the secret of the true saints of all ages who have awaited the aeon to come because they were already in it and whose future was illuminated as much by their present possession as was their present experience by their hope of future glory. Only such a faith will fit us to walk among the prophets of a new day that shall dawn, if God will, after the night that is descending upon the West, or to walk among those whose raiment is washed white if the "decline" of the West should be a feature in the final act of the drama of history. Only thus can we say: "Whether we live therefore, or die, we are the Lord's" and "Amen. Come, Lord Jesus!"

ASTRONOMY

By H. Harold Hartzler, Ph.D.

Is there Life in other Worlds?

In the February 1955 issue of "Sky and Telescope" Otto Struve of the Leuschner Observatory, University of California has an interesting article on this subject. Dr. Struve refers to several sources which should be investigated by any one seriously interested in this subject. First one should mention the famous book by Sir Harold Spencer Jones entitled "Life on Other Worlds". This book published in 1940 presents most of the evidence available at that time on this subject. In the preface he quotes from Bernard de Fontenelle, "La Pluralite des Mondes" with reference to those who think that this subject will prove dangerous to religion,

"I know how excessively tender some are in religious matters, and therefore I am very unwilling to give any offense in what I publish to people, whose opinion is contrary to what I maintain. But religion can receive no prejudice by my system, which fills our

infinity of worlds with inhabitants, if a little error of the imagination be but rectified . . . And to think there may be more worlds than one, is neither against reason or scripture. If God glorified himself in making one world, the more worlds he made, the greater must be his glory."

The second reference is Gerard P. Kuiper, "The Atmospheres of the Earth and Planets". This is a symposium volume edited by Dr. Kuiper. The chapter of most direct concern to us is that by Kuiper on "Planetary Atmospheres and Their Origin". Another reference which should be mentioned and which should be read by every member of the American Scientific Affiliation is that by George Wald entitled "The Origin of Life" which appeared in the August 1954 issue of Scientific America. The following quotation is quite interesting,

"The reasonable view was to believe in spontaneous generation; the only alternative to believe in a single, primary act of supernatural creation. There is no third position. For this reason many scientists a century ago chose to regard the belief in spontaneous generation as a 'philosophical necessity'. It is a symptom of the philosophical poverty of our time that this necessity is no longer appreciated. Most modern biologists, having reviewed with satisfaction the downfall of the spontaneous generation hypothesis, yet unwilling to accept the alternative belief in special creation, are left with nothing.

I think a scientist has no choice but to approach the origin of life through a hypothesis of spontaneous generation."

Of course one has to accept such a conclusion if there is no belief in a supreme being who is the creator and sustainer of this vast universe. There is thus bound to be a conflict in the conclusions reached by the Christian and the unbeliever.

In his article on "Life on Other Worlds", Dr. Struve takes essentially the same point of view. For instance he says,

"We take the view that life is an intrinsic and inseparable property of certain aggregates of very complex organic molecules. No such aggregates have been produced artificially but if we could make them in the laboratory, we would undoubtedly find them to be 'alive'."

In the present article the point of view is taken that it is just as reasonable to postulate a creation as it to postulate spontaneous generation. We are interested in finding out whether Astronomy is able to give any evidence as to the existence of other planets where the conditions are favorable for the existence of life. If such planets exist we may then postulate that God has created life there and thus there may be life on other worlds. Conditions favorable to the existence of life on a planet which may be examined by the astronomer are amount and kind of atmosphere,

amount of water present, and average and extreme temperatures existing on its surface. Each of the nine planets of our solar system have been extensively investigated with reference to these conditions. Six of them have such conditions as to rule out entirely the possibility of life on their surfaces. Of course we know that life exists on the earth. The other planets to be considered are Mars and Venus.

The temperature on Mars averages 30 to 40 degrees centigrade lower than that on the earth. It would nevertheless be able to support life. Observations show that very little free oxygen occurs in its atmosphere as well as very little water vapor. However it is inferred that some water does exist due to Kuiper's demonstration that the polar caps, which are quite conspicuous at times, consist of hoar frost. There is a considerable amount of carbon dioxide present. The atmosphere of Mars is very thin, its total weight being only about one-tenth of that of the air above the earth. Nitrogen is thought to constitute about 98 per cent of its atmosphere though it is unobservable in the accessible region of the spectrum.

Since the spectral features of chlorophyll are absent over the green areas of its surface, it is quite certain that no advanced types of vegetation are present. Still there may be some lichens and mosses present. It is thought by some that Mars may be a planet where the conditions favorable to life existed many years ago. Of course this is just speculation so all that can be said with any degree of certainty is that if there is life on Mars it is of a rather primitive kind.

The planet Venus resembles the earth in mass and size. Being nearer to the sun it is warmer than the earth. Since its surface is completely covered by clouds of unidentified composition at all times it is impossible to say much about the existence of any plant or animal life there. No observable free oxygen or water vapor is present in its atmosphere. However the spectroscope does reveal a large amount of carbon dioxide.

Until recently astronomers concluded that the surface of Venus was lacking any water. However in the November 1954 "Sky and Telescope" D. H. Menzel and F. L. Whipple have suggested that its surface is completely covered by water. It has been suggested that Venus is a planet where the conditions favorable for life are about to take place.

Thus we reach the conclusion that in our own solar system there is but one planet with an abundance of life and one that may have some low forms of life. We now seek for other solar systems like our own where the conditions favorable for life may exist. All recent astronomical study on the sun has shown that it is very much like a large number of the 100 billion stars in our galaxy. If this likeness extends to the method of its origin, then presumably there would

be many solar systems like our own. Struve concludes his article as follows,

"It is unreasonable to suppose that one in a thousand or one in a million of these billions of stars underwent a catastrophic process resulting in the formation of planets—without at the same time producing other observable differences in such properties as the axial rotation of the stars.

Since we cannot adduce a proof one way or the other, we must rely upon what seems to be the most logical hypothesis. And this is without doubt the assumption that all, or at least most dwarf stars of the solar type have planetary systems. The total number of planets in the Milky Way may thus be counted in the billions.

As to how many can support life, we might adopt the solar system as a typical example. This would give us one out of nine for the kind of advanced organisms we find on earth, and perhaps one out of nine which we might describe with Spencer Jones as 'a planet of spent life', and another one out of nine with life in the embryonic state. Thus, the total number of planets with some form of life on them could still be in the billions."

It should be added that this is indulging in a large amount of theorizing and that therefore we can be certain at present of life only on one planet.

107 W. Plymouth Ave.

Goshen, Indiana

February 16, 1955

BIOLOGY

by

Irving W. Knobloch, Ph.D.

The Role of Recombination in Speciation: The three previous articles have discussed the parts played by point mutation, chromosome rearrangement and polyploidy in the formation of new species. Examples were given whenever available. The fourth method, it seems to us, is that of crossing, hybridization or recombination. The term hybrid has had several meanings in the past but in this article the term is restricted to crosses between species or higher categories.

Hybridization was the most obvious method of species formation prior to the discovery of the first three methods mentioned above. Lotsy, in 1916, was the great proponent of crossing. Conway Zirkle's book "The Beginnings of Plant Hybridization" traces the history of the subject and is well worth reading. He mentions, among other interesting things, that Galen, 130-200 A.D. recognized hybrids as being intermediate in appearance between the parents. The test for a hybrid character now in the twentieth century has become quite involved and employs the techniques of a number of disciplines including morphology, cy-

tology, breeding, genetics and biometry. The best test involves the resynthesis of the hybrid from its putative parents. Secondly, chromosome lagging in the meiotic divisions and more than 50% bad pollen are good clues.

A great deal has been made of the sterility of hybrids by those believing in the fixity of species. The mule is almost always given as the prime proof of the futility of crossing in promoting new species. The writer is now compiling a list of all known hybrids as found in the literature (list will be finished about 1980) and it is quite surprising to note the number of hybrids that are listed as fertile. I fully expect to have several hundred fertile hybrids listed by the time the study is finished. A few examples may be useful—*Platanus acerifolia* (*P. aorientalis* x *P. occidentalis*) has normal meiosis and is highly fertile—*Salvia mellifera* and *S. apiana* form fertile hybrids and *Paecilosis pomonaria* x *P. isabellae* cross to produce fertile offspring. The first two examples are plants and the third one is a fish cross. There are dozens more that could be cited.

It is well-known fact that the more similar the chromosomes and genes in two species, the more easily they can cross. We therefore expect to find fewer successful crosses between genera and higher categories than between species. It cannot be denied that the majority of hybrids are sterile but there are enough fertile ones to completely discredit any belief in the fixity of species.

In fairly recent years it has been discovered that sterile hybrids can become fertile by chromosome doubling or allopolyploidy. This doubling provides mates for otherwise mate-less chromosomes and pairing in meiosis can go on more or less normally. It has been said that a large proportion of genera and even higher categories of angiospermous plants may be polyploid and of presumably hybrid origin. Goodspeed and Bradley (Bot. Rev. 8 (5): 271-316, 1942) listed over one hundred plants which combined hybridity with chromosome doubling in their formation. Julian Huxley in "Evolution, the Modern Synthesis" says that allopolyploidy has undoubtedly played an important role in the evolution of many plant genera. Stebbins says in "Variation and Evolution in Plants" that allopolyploids have been synthesized in forty or more instances and that they have regular pairing of the chromosomes.

Another interesting facet of the matter is the possibility of confusing mutations with hybridization. Dr. Ezra Brainerd worked with the genus *Viola* in the early part of this century. He found that *Viola affinis* produced black seeds instead of yellow ones, that *V. cucullata* produced dark purple capsules instead of clear green ones and that *V. nephrophylla* had buff seeds instead of black ones. These aberrations were termed mutations by many scientists but Brainerd

showed that the plants in question were hybrids and he was able to reproduce them to show their exact parentage.

Probably the most stalwart supporters of hybridization in this country is Dr. Edgar Anderson of the Missouri Botanic Garden. He suspects that there are more hybrids abroad than is commonly supposed, even going so far as to doubt the genetic purity of the common organisms used in genetic research. His catch-words are "introgressive hybridization" and "hybridization of the habitat". In regard to the first term we might say that hybridization under natural conditions results in repeated backcrossing to one or both of the parents. With each backcross, the hybrid nature becomes less apparent. Hence it is suspected that many supposedly normal species are, in reality, hybrids. The unraveling of the derivation of these plants is a major operation but Anderson has succeeded in enough cases to prove his point and to open up an entirely new and enlarged vista in respect to evolution.

Through the course of time, species have become stabilized and have their own ecological niches to which they are adjusted. If the habitat is distributed or hybridized, then species not normally near one another, may be brought together and frequent hybridization may take place. This phenomenon (frequency of hybrids in disturbed habitats) can be seen in nature by the careful student where ditches have been dug, where timber has been cut and where roads have been built. Tornadoes, hurricanes, floods, and fires are natural hybridizers of the habitat. The fossil record is peculiar in many ways but one thing that stands out is the frequency of bursts of evolution that seem to occur, such as the proliferation of amphibians after the mid-paleozoic, or reptiles and ammonites after the late paleozoic earth movements and of mammalian forms in tertiary times. Natural forces which hybridized the habitat in those times may have been indirectly responsible for the bursts of evolution. Anderson believes that introgressive hybridization is more important than all the other forces put together in providing raw materials for natural selection to work on.

It will be quite interesting to note the course of development of our ideas regarding the forces causing speciation as time goes on. As indicated earlier hybridization was in great favor at one time; then, as other factors became known, it receded from popular favor. Lately the idea has again come to the fore. Of course, many workers still think of it as a minor cause of speciation but until we have as many examples of species arising by mutation, chromosome rearrangement and polyploidy as we have by hybridization, we shall have to accord it a prominent place in the evolutionary scheme.

East Lansing, Michigan January 15, 1955

PHILOSOPHY

by

Robert D. Knudsen, Th.M.

One of the most influential thinkers in our country on the subject, Faith and Culture, is Reinhold Niebuhr. Since the publication of his *Nature and Destiny of Man* he has been counted among the foremost, if not the foremost, theologian in America. How does he see the relation of faith and culture?

Niebuhr is numbered among those theologians who have fought relentlessly against the spirit of modern man, and also against the liberal theology which they believe has made its peace with that spirit. It is sure that their attack has not meant a return to orthodoxy. But that Niebuhr's position is brave and daring no one can deny.

Niebuhr opposes the modern idea that man is able to transcend himself and his world simply and unambiguously and that history is a record of this gradual conquest. He says that the idea of linear, evolutionary progress is a delusion of the modern mind.

According to Niebuhr, man does transcend himself; but this transcendence is not unambiguous. Besides being transcending spirit, man is also enmeshed in nature. He is a being at the juncture of nature and spirit. His freedom lets him rise above nature, but it also lets him inevitably mistake the height of his transcendence over nature and its particularities. This leads to pretension, sinful pride, which is not necessary but is inevitable because of man's situation. Ultimate transcendence and universality is a possibility hovering over man's life; but it is at the same time impossible of being reached. Man must never think that he can actually reach the goal either by leaving history behind for a timeless realm of being or by entering a final and complete period of history. The goal is transcendent; it is above historical activity; it is beyond the end of history; it is eschatological.

Man transcends the world; but he must also recognize that he is always enmeshed in the relativities of history and that he is inevitably sinful because of his pretensions not to be so enmeshed. The more he tries to disentangle himself from the confines of his situation the more enmeshed he becomes. The only way of escape is through the forgiveness of grace.

In man's transcendence his reason is an important factor. Reason is not the ultimate, however. It cannot fathom the ultimate truths of man's situation. Trying for a rational ultimate explanation, we get only mutually exclusive, partial perspectives. We are torn between monism and dualism, optimism and pessimism, the world as meaningless and the world as revealing simple and good meanings. Only in terms of a

super-rational, imaginative, religious view (myth) can thought come to a unity and the paradoxical, nature-spirit situation of man be expressed. The ultimate transcendence and the ultimate principle of interpretation are not rational but religious.

As early as 1935 Niebuhr was placing the religious above the moral. He writes, "The dimension of depth in the consciousness of religion creates the tension between what is and what ought to be. It bends the bow from which every arrow of moral action flies" (*Interpretation of Christian Ethics*, p. 8).

Niebuhr's ideas certainly hit some of the fondest positions of modern man. He questions the ability of reason to transcend the particularities of nature and to gain a universal standpoint. If one looks carefully he sees that Niebuhr is also seeking the same universality for which Rationalism looked; but his denial that reason can attain it is against the modern mind, to say the least. He also questions the possibility of attaining the universal community for which the modern spirit so eagerly looks, for unlike it occurs in the formation of particular historical groups here "... unity must be achieved in definence of the unique and particularistic forces of historical concretion" (*Faith and History*, p. 4). He also questions the independence of morals. Morality roots in religion. Man's release is trans-moral, a matter of grace. To bring to an end what might be a long list, Niebuhr questions that history is bettering through immanent forces. There is no unambiguous progress toward the solutions of man's problems. The end and meaning of history are beyond history.

Niebuhr claims, therefore, that culture must be understood religiously if it is to be understood at all. Niebuhr offers a critique of secular culture. But looking closely we see that reason makes room for faith only by a critical self-limitation. In Niebuhr there is no call, as there is in Kuyper, for a reformation of thought itself in the light of the Christian faith.

It is true that Niebuhr does not set an impassable gulf between the gospel and culture, as does Barth; he seeks an organic connection. But he never comes to the question of the religious foundations of reason itself. For this reason, he never asks, as did Kuyper, about the possibility of a *Christian* philosophy or a *Christian* science. He never sets a philosophy of the *civitas dei* over against a philosophy of the *civitas terrena*. To take such a contentful position in opposition to a supposedly non-Christian contentful position would be for Niebuhr a flagrant example of the *hybris* he is trying to avoid and which he brands as sin. The Christian shows the limits of reason and the need for a mythical approach; but he does not seek an inner reformation of thought itself.

As an example of a contribution in the line of Kuyper I would point to the article of Dr. Jellema, "Calvinism and Higher Education" (*God-Centered*

Living. Grand Rapids: Baker, 1951). Here Jellema takes the position that education, culture, reason are all either in the service of the *Civitas die* or the *civitas terrena*. Religion is not only needed at their boundary; religion is constitutive of them. Here, as in Niebuhr, there is an attack on the pretension of modern culture that it can be autonomous with reference to religion. But I believe Jellema approaches the question in a better fashion than Niebuhr. Though his writing is not as elaborate or as scintillating, I believe his approach is fundamentally more fruitful, for he asks about the relation of the Christian faith and culture more radically and Biblically, and thus with a more sure hope of success.

February 10, 1955.
Rockmont College
Longmont, Colorado.

PSYCHOLOGY

by

Philip Marquart, M.D.

Vaughan's textbook of Social Psychology is a very full and complete text for Christian students, but unfortunately, the author is a humorist, liberal, idealist and pantheist. He takes a stand which is near to naturalism. The following quotation illustrates his unscriptural stand: "the naivete of the belief that God can interrupt the course of nature to suit the whims of the faithful." The last chapter of James relates how Elias, a man of like passions with us, did actually interrupt the course of nature, by his prayer to God. There are many who call themselves Christians, who deny that their God is able to change the course of nature, but their God is too small for His universe. My God is able, He is able to do anything under the sun—or above it. Those who believe in an absolute uniformity of nature, are not even on theistic grounds. They are Neo-deists. Do you believe in the miracle of the resurrection? If not, then you believe that the body of the Lord Jesus still lies in a grave. If you believe that God is not now able to do the same, in His own will, then you may as well throw your Bible in the trash can, burn down the church, and shoot the preacher.

I asked a number of Christians to characterize the quotation above. Five left it unanswered, three said that it was naturalism, one said it showed egocentricity, two said that it was an example of Pentecostal thinking. Four labeled it miracles and three said that it described Christian faith.

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Book Reviews

The Creations: Facts, Theories, and Faith by Theodore L. Handrich Chicago: Moody Press, 1953, 311 pages. \$3.95

This is an attractively bound and well organized volume which considers a number of theories about science and the Bible. The author writes well, but one cannot help but have some misgivings about his formal background in the scientific disciplines related to the subject.

Handrich reveals a serious lack of understanding of natural selection, adaptation, and present-day evolutionary theory. Evolution, as in so many anti-evolutionary writings, is treated almost completely as Darwinianism unchanged. The author believes that "The strongest proof against it is that acquired traits are not transmissible to one's offspring. . ." when evolutionists for over a generation have known this and have developed their theories accordingly.

The discussion of the dynamics of adaptation and selection indicates a total lack of familiarity with the literature in the field of genetics, particularly on systematics and speciation.

The author quotes as "scientists of today" those whose works were published in the twenties and thirties, and relies almost completely upon the *Deluge Geology* of Harold W. Clark and George McGready Price, quoting errors of fact and fancy without examination of primary sources.

Perhaps the most fanciful of these is the explanation for fossil sequences in geological strata, known as "ecological zonation." Briefly, it is the belief that the Flood inundated in orderly fashion each zone of ecologically adapted animal life, these now comprising the various geological strata with their own assemblages of fossils.

Handrich's sincerity and use of scripture and his evangelical stand, this reviewer fears, will lead readers to believe that his science is as sound as his theology.

James O. Buswell III

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OF INTEREST

It is the purpose of this section to call attention to some articles that may be of interest to some. It is not an attempt to abstract the articles. Mention of an article here does not necessarily reflect editorial recommendation of its conclusions.

Intelligence Digest Supplement

"The Loom of Life" is the title of a series of articles on the wonders of creation. Each installment discusses the more fascinating instinctive habits of various creatures.

The first (September, 1954) concerns the *Eumenes* wasp and its preparation for its young. For instance, an exact count of paralyzed caterpillars of a certain species are stored in the prepared nest. Another story concerns the trap door spider (October), another the eel (November), the salmon (December), and the stories of migrating birds and other mysteries (January, 1955).

Several articles on the controversial subject of faith and healing have appeared. The need for spiritual study in therapy is emphasized in two articles entitled "The Spiritual Factor in Therapy" by Arthur Pool and J. A. C. Murray, one a physician and one a minister (September). Another physician, R. W. Luxton, in "Faith and Health" discusses the role of religious in producing mental health and serenity, and their effect on physical health. In "The Power of Prayer" Dr. C. Woodard tells of his experience in divine healing.

"Radiesthesia" by E. Sykes, tells of at least one organization, the Paris Radiesthesia Congress, which attempts to study the apparent phenomena of human radiation and reception. Radiesthesia is a new name for an old "art" which includes "divining" and "dowsing." The author, apparently a follower of these beliefs, summarizes some of the methods used (September, 1954).

In "Horse Sense or Nonsense" Deny Parsons, M.Sc., a member of the Society for Psychical Research, summarizes the findings on some cases of "talking animals." He concludes that in all cases the phenomena can be simply explained by ordinary communication between the operator and the animal, and that "The study of talking animals teaches us little about animal behavior, but a good deal about the psychology of humans." (December)

"The Age of the Universe" by Prof. C. A. Coulson (abstracted from a paper "Science and Religion" given before the British Association) gives the author's religious conclusion from the manner in which it is believed the universe was formed. Essentially, it is a testimony indicating a conservative Christian faith.

(December, 1954)

In "Longevity Records of Vertebrates," Dr. Ross F. Nigrelli presents some collections of known ages for fish, reptiles, birds, and mammals which should squelch some of the fantastic ages often quoted for some animals. (January, 1955)

Christian Life

In "Miracles," by Dr. Philip Marquart, a Christian psychiatrist, discusses the problems of divine healing from the standpoints of Scripture and patience. (December, 1954)

Bibliotheca Sacra

"The Catholic Approach to Bible and Science." Dr. Bernard Ramm summarizes the approaches of Catholic opinion in matters of science and their reaction to evolution, antiquity, and other problems within the framework of their dogmatic structure.

Nature

"Some Aspects of the Conflict Between Science and Religion." H. H. Price, Professor of Logic at Oxford concludes that a theistic view can no longer be excluded as superstitious and unscientific. This conclusion is in part a result of para-normal phenomena. (173, 152)

In "Science and Cosmology", Dr. Herbert Dingle summarizes some of the scientific and philosophical problems in setting up a world view. Among other points, he makes an appeal to present only statements about the universe for which evidence is available, as against the too-common practice of making unsupported statements on the assumption that they cannot be foreseeably refuted; the doctrine of continuous creation (Hoyle, etc.) he puts in this category. (173, 574)

The development of the Gyrotron, an instrument that detects rotation through Coriolis forces, resulted from an explanation of a corresponding mechanism in the halteres of Diptera, the lateral, vibrating projections from the fly's thorax. A summary is given by A. L. Percival (173, 572)

Scientific Monthly

In "The Variety of Reasons for the Acceptance of Scientific Theories", Philip G. Frank, Professor of Physics at M.I.T., discusses what determines how a scientific theory is built as well as why it is made. He points out that more is involved than agreement with observation and simplicity. Self-evidence prediction, moral desirability as well as religious and political beliefs have entered in, now as well as in the past. He also points out that fallacy in assuming, as many do, that the "scientific method" is the only valid one that can completely resolve differences. The influence of Bible interpretation is shown to have been strong in the decision of whether a theory is "true" or not.