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A "SYSTEMATIC THEOLOGY" OF A "RELIGION BASED ON SCIENCE"

A Study in the Book
Science Ponders Religion

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The book Science Ponders Religion is a symposium edited by Harlow Shapley, and published in 1960 by Appleton-Century-Crofts, Incorporated, of New York. This book, according to the jacket, is by "a group of the country's most eminent scientists, who examine a problem which has puzzled and enthralled mankind, in the light of the most recent scientific knowledge." The jacket further explains:

> Since the first fumbling steps toward scientific knowledge, there has been a continuing war, sometimes hot and sometimes cold, between science and religion. It has involved the most sophisticated as well as the most uneducated minds. Its martyrs have been many. Yet it may well be that science will become the revealer, and not the antagonist, of religion; that religion will be redefined in such a way that its God is the natural and not the supernatural Creator; and that these concepts will constitute the basis of a world religion of the future.

A reading of the book indicates that the blurb is accurate. The symposium writers indeed suggest that a "new religion" is to be developed on the foundations of science, and they are in the vanguard of that movement. This writer feels that their comments provide enough breadth of scope that a "systematic theology" of this "scientific religion" could be traced, at least in outline. This study is an attempt to do this.

Such a study as this is clearly justified by the nature of Christian apologetics. It is part of the function of the apologete to "scout out" or explore opposing religious systems. Christianity is best defended from attacks by philosophical and religious systems if these are clearly understood. This study is thus an attempt to understand a religion which is intended by its founders to rival and eventually supersede true Christianity.

The study is organized along the lines of traditional theological categories, with a few exceptions. The general content of the sections is as follows: Section one discusses the views of the writers of Science Ponders Religion on the question of religious authority, comparable to Bibliology in the Christian system. Section two deals with their views of man and Section three their views of God, reversing the order of Christian theology, since Christian systematics is

theocentric, while their view is anthropocentric. God is created in man's image, instead of vice versa.

Section four combines the writers' views on Soteriology and Eschatology. It is science that is to be man's savior. Science's messianic function will bring in a utopian "golden age." Such a "salvation" requires an ethical system, of course, and this will be developed on naturalistic grounds, to replace theistically oriented ethics. It also requires the modification of existing religions to make them "compatible" with science. Conservative Christianity is duly put on notice that it is to be impeded wherever possible.

Due to the nature of the subject this writer has let the eighteen symposium authors "speak for themselves" wherever possible. This accounts for the large number of quotations in this study.

Note should be taken of one writer whose paper struck a note quite different from the theme all the others propound. Edwin C. Kemble, in "Faith and the Teaching of Science" warns against building too much on the claims of scientific materialism, calling these claims "an unproved and dubious extrapolation of the legitimate conclusions of science" (p. 246). Apparently, however, the other authors of the book ignore Kemble's wise counsel as we shall now see.

I. AUTHORITY

The work Science Ponders Religion reveals a conscious or unconscious attitude toward the source of authority in constructing a new religion based on science on the part of its authors. This view of religious authority is set forth in four ways: 1) The basic assumptions which are the starting point in their thinking. 2) Their attitudes toward supernatural revelation in general and the Bible in particular. 3) Their recognition, tacit or otherwise, of the limitations of science as a source of truth. 4) Their expressed aim to use science as a means to construct a new religion.

Basic Assumptions

Any system of thought requires something to be assumed at the start, as mere logic is only a tool, which must have something to work upon to produce anything. In spite of professions of scientists to rely only upon inductive study of experience in a strict empirical approach (p. 268), the choice of what experience to study always comes by deduction from some a priori chosen position or principle. Thus certain presuppositions by necessity lie behind this proposed religion under study. These basic assumptions which serve as the starting point for the symposium writers are usually unconsciously revealed, but their unavoidability is admitted. Paul E. Sabine in his chapter "Religion and (or) Science," admits that having presuppositions is unavoidable: "Neither a radical skepticism nor a positive religious faith is based on wholly rational grounds. Both involve a 'will to believe.' The difference lies in what one chooses to believe" (p. 283). Ian G. Barbour similarly says, "Every philosophy of life selects some aspect of experience as the key organizing principle, as the most significant category of

interpretation. . . . Every world view is in part a venture of faith not deducible from science alone . . ." (p. 200).

In spite of these admissions, the nature of the assumptions these scientists begin with is usually not explicitly set forth. Instead they appear to be unconsciously held, and their nature must be deduced from various statements made in other connections. The following are some of their assumptions:

1) Matter is self-existent and eternal, and natural law is self-existent, eternal, and universal.

Harlow Shapley, in "Stars, Ethics, and Survival," writes: "Ordinary physics and astronomy suggest that if several billions of our years ago we had all that hydrogen and the natural physical laws, what we now see would have followed without the intervention of miracles and without supernatural intercession" (p. 3). But Shapley does not suggest either where the hydrogen came from, or what made and still makes the laws operate. Instead, he simply assumes that, in his words, "In the beginning was . . . hydrogen gas" (p. 3). Shapley writes again, "The physical laws seem to be universal" (p. 11). This also is an unprovable assumption which seems to conflict with the scientist's own doctrine that chance is ultimate. John C. Greene in "Darwin and Religion" records Charles Darwin's struggle with this problem (p. 273).

That there are natural laws at all, and the utter simplicity of those known, is a source of amazement to many scientists. Henry Margenau, in relating the scientist's surprise that "our experiences are not a chaotic welter but display . . . order and consistency," and in his considering the order in nature the "one supreme miracle," tacitly reveals the tension between the place scientists give to chance in the scheme of things, and their findings of regularity and simplicity in nature (p. 111).

2) There is no supernatural.

C. Judson Herrick indicates these scientists' attitude toward the supernatural. "Any arbitrary 'supernatural' interferences with natural processes must be ruled out," he writes, "and any apparent evidence of such miraculous events must be due to imperfections in our knowledge of natural law" (p. 30). Here is seen the "heads I win tails you lose" nature of the scientist's faith. Any evidence of the supernatural is pre-judged as only apparent, and as ultimately explainable on naturalistic grounds.

The same author reveals another common method of disposing of the supernatural--by way of definition. If the natural is defined as that which is within the range of human experience, actual or possible, then the supernatural is the realm of the unknowable and unexperienceable (p. 303). The supernatural cannot, by definition, come within our experience, so the God of the Bible need not be bothered with!

Attitude of Science Toward Supernatural Revelation

What amounts to a third major presupposition is the attitude of these scientists toward the

possibility of divine revelation in general, and the Bible in particular. This attitude is negative, growing out of the assumption that there is no supernatural per se. If, in Herrick's view, the natural is all that can be known or experienced by man, then the possibility of a supernatural Being entering man's circle of experience to communicate to him any valid knowledge is ruled out. Herrick on one occasion writes, "It is legitimate to extrapolate from the known facts into the unknown, but not to reverse the procedure" (p. 303). This statement is true, of course, but a loaded one if the possibility of divine revelation as a source of "known facts" is arbitrarily excluded.

Hudson Hoagland, author of the chapter "Some Reflections on Science and Religion," also shows this bias: "The scientist cannot accept supernatural revelation as a way to knowledge. Revelation based on either secular or theological authority is alien to his way of life and thought" (p. 21). Again he says, ". . . to many scientists the concept of revelation is intrinsically unacceptable" (p. 27). He considers divine revelation as only mysticism--"indefinable and unsharable ways to a superior knowledge of God" which "it is impossible for some of us to accept" (p. 20).

R. W. Gerard traces the physical ways knowledge may be transmitted by the nerves to the brain, and concludes that there are no other possible ways than those he names.

> Well, then, he says, this leaves inspiration, or whatever word you prefer, as a kind of clicking into place of the activities of groups of nerve cells. We know this happens, and with it comes insight. If this is what is meant by "revelation," all right; but I see no other avenue to knowledge, even of God, or any other path to action (p. 92).

Concerning the Bible itself, these men welcome the theories of the radical higher critics concerning the origins of Scripture. Kirtley F. Mather simply assumes the truth of the Graf-Wellhausen theory regarding Genesis one to three, that there are two "quite different accounts of creation" in these chapters written by at least two different authors (p. 36). Mather considers the Genesis record as simply an "ancient attempt to deal with the concept of creation . . ." (p. 37). Hoagland attempts to explain "scientifically" how the writers of Scripture might come to construct such a theological account of nature (pp. 23, 24). In another place he puts it,

> Thus logical proofs of the existence of a beneficent personal God are to most scientists meaningless because they cannot accept the assumptions upon which the logic operates. The historical bases of divine revelation are devoid of the evidential qualities essential for conclusions. Psychological interpretations of religious experience offer to many a more probable foundation for these phenomena than do the interpretations of the theologian (p. 19).

Henry A. Murray in "Two Versions of Man" gives an extended critique of the Old Testament prophet. He concludes that what the prophet presented was merely human creativity; his sin was pride--the pride of claiming to be God's "only select spokesmen;" the nemesis of the majesty of the Bible is this: "Deity . . . imprisoned there and silenced" (pp. 174-176).

"Religion, by sitting pat in its citadel of solidified infallibilities, repelled the lovely goose that lays the golden eggs--the creativity in man . . ." (pp. 175-176).

The scientist leaps one step further, into the realm of hermeneutics. Since the Bible seems to conflict with scientific dogma, its statements must be shorn of literal force by being considered merely poetic or symbolic. Failure to recognize the Bible as poetry, says Murray, "has gone hand in hand with the playing up of its factual dependability" (p. 176). John L. Fischer holds that "the tendency to behave as if symbolic religious statements and representations are literally true, is one important source of conflict between science and religion" (p. 233). His own presuppositions are apparent from the statement which follows: "Most of us would agree that when religious dogma clearly conflicts with scientific findings about the nature of the universe, we should modify our religion" (p. 233).

The Limitations of Science as a Source of Truth

The attitude of scientists toward their own method appears in this symposium. Murray relates their attitude toward scientific laws: they are "laws which announce only that which is statistically most probable as determined by recordings of past events" (p. 172). Herrick expands on this concept of scientific truth as being only probabilities. "Science knows no absolutes of truth, of perfection, of right, or of anything else. These are the ideals toward which we work, but in actual practice these values are all relative . . ." (p. 295).

The limitations of the scientific method are also admitted. Barbour concedes, "A scientific theory is never proven true; at best it is seen to be more fruitful, consistent, comprehensive, and simple than the alternative theories currently available" (p. 205). Hoagland recognizes this but takes a step further: "Absolute and final truth is not within its province. But science can ultimately yield so high a degree of probability as to become certainty for all practical purposes" (p. 24). This presumed certainty becomes the basis for an excursion of these scientists into the field of religion.

The Use of Science to Construct a New Religion

"The study of 'the God of history made manifest in his works' is incomplete if 'history' is limited to the last few thousand years; it should be the history of all life, indeed of the universe as a whole" (p. 39). With this outlook, a new "theology" may be constructed to suit the taste of the naturalist. Holton applauds those who have come to what John C. Whitcomb calls a "Double-Revelation Theory" (see his Origin of the Solar System) in these words: "God has revealed himself in different ways to the scientist and to the theologian" (p. 64). The same author cites Galileo's position as that "science is one of the legitimate ways of reaching out toward God" (p. 58). Ralph W. Burhoe feels that "Science provides the basis for a new testament, a new scripture of truth about man and his destiny" (p. 77). He therefore goes on to provide some "speculative transformations of religious doctrines to better fit the realities established by the sciences" (p. 85). The transformed doctrines will be the work of the "new scientific theologians" (p. 82). A sketch of some of these will appear on the following pages.

II. ANTHROPOLOGY

The new religion based on science begins logically with an interpretation of Man. Without him there would be neither science nor religion. Indeed, the new religion which is to be compatible with science is anthropocentric in nature, a religious humanism.

The views of the authors of Science Ponders Religion on man and his place may be conveniently grouped in four categories: Man's source, his nature, his work, and his future.

Man's Source

If there is one idea that all the writers agree on, it seems to be that "man is a product of the progress of evolution" (p. 35). Man, says Murray, has been created from within and below, not from without and above (p. 178). This story of man's supposed humble origin begins several billions of years ago with countless anonymous hydrogen atoms, so that, as Shapley puts it, "Man himself . . . is one of the late products of that hydrogen mutation deep in the sun . . ." (p. 2). In fact, "man is descended from the very humblest of parents, a purely fortuitous combination of chemical elements . . ." (pp. 154-155). Nor is there any evidence of "consciousness of goal in any of the structurations which led to the human species" (p. 156). Life simply emerges automatically when conditions are right, says Shapley: evolution "evidently did happen . . . for here we are!" (p. 9). Mather seeks to trace the last stage in man's rise. Modern man "may be traced from generalized primates who lived sixty million years ago" (p. 44). He spells out necessary changes in anatomy, but sees as especially important "the evolution of the cerebral cortex until it was capable of imaginative reasoning and rational thought," followed by behavioral and cultural changes which elevated the human spirit (p. 44).

Man's Nature

Man, we are told, has a common biological ancestry with the animals. Gerard tells us that the main difference between the animal and human brain is the number of nerve cells (p. 91).

But in spite of this similarity, man is a scientific problem to himself. How the vast differences between himself and the "other animals" arose is difficult to show. Theodosius Dobzhansky attempts to show in his chapter, "Man Consorting with Things Eternal," how some of these differences arose. Given the endowment by natural selection upon man of "the possibilities of symbolic abstract and generalizing thought," the steps which naturally follow are attainment of languages and self-awareness, followed by feelings of accountability, guilt and shame" (pp. 128-132). Dobzhansky seems aware of the difficulties of his thesis.

> In a sense, he writes, human self-awareness and consciousness are not legitimate products of adaptive evolution. They came, as it were, through a back door of the evolutionary process. The hypothesis that they are products of biological evolution may easily be challenged, and it is incumbent upon us to consider whether this hypothesis can be sustained on purely biological grounds (p. 129).

He attempts to solve this problem by making these feelings the by-products of other, more useful traits.

Sabine similarly discusses the "free and conditioned" aspects of human personality, holding that "that sense of incompleteness with a feeling of guilt that theologians ascribe to 'original sin,' stems from the tension between these two elements of conscious personality" (p. 285). A. G. Huntsman's chapter title pictures man as "Poised Between the Dictates of Nature and a Peculiar Freedom." One cannot help being reminded of certain neo-orthodox theologians who find man "in the tension of the dialectic."

Another aspect of man's nature dealt with is the problem of personal immortality. Burhoe, in a chapter "Salvation in the Twentieth Century" holds that there is ultimately no real personal identity of individuals, and therefore no personal immortality. Man's true "spiritual" being or "soul" is bound up inextricably to the whole of the cosmos and one's fellow beings. Thus there is immortality, but not personal. One lives on in the group, just as he has pre-existed in the "genotype." "The core or soul of my being," he declares, "the sciences reveal, is older than the hills, a growth of hundreds of millions of years, still conserved as living values in my genotype" (p. 83).

Whatever the speculations concerning man, his origin and future, the fact remains that his real nature is still not understood. Greene laments, "Whatever his origin, man is a very peculiar creature, whose inmost being eludes the abstractions of science" (p. 126). Dobzhansky, in pondering the inevitable problem of human knowledge, states, "The problem of the origin of human understanding has, it must be admitted, thus far eluded a satisfactory and satisfying solution in evolutionary terms" (p. 126). Man is, then, as far as his nature is concerned, an unsolved problem to himself.

Man's Work

But although man cannot understand himself on naturalistic grounds, his recognized place at the summit of evolution so far gives him vast prerogatives to exercise. Since the nature which produced him is his "lord and master," as Burhoe puts it, man becomes the servant of the laws of nature. "Man can most properly conceive of himself as a local agent and servant of the creative process of the universe" (p. 81). Man becomes, as it were, the high priest of the pantheistic deity which has produced him through evolution, and takes charge, to the measure he becomes able to do so, of its future evolutionary progress.

Man's Future

Kirtley F. Mather concludes his chapter on "Creation and Evolution" with both a warning and a promise concerning man's future. "Man may or may not fulfill" "the purpose of the administration impersonal of the universe."

> If man fails, whether he "goes out with a bang or with a whimper," somewhere else . . . the creative processes may be more successful. The final

chapter in cosmic history is not being written by twentieth-century man. On the other hand, if man, with his particular anatomical and spiritual characteristics, fulfills the specifications, all's well and good--for man as well as for the administration (p. 45).

III. THEOLOGY PROPER

The work Science Ponders Religion reveals a conscious shift of thought concerning the existence and nature of God. This shift begins with the rejection of the God of Scripture and ends in a naturalistic pantheism. Five distinct steps comprise this process of thought: 1) Rational arguments for the existence of God are rejected. 2) Belief in God is explained as only the result of a human drive. 3) The scientific picture does not need God to complete it. 4) Natural laws exist by themselves. 5) God and the universe are identified.

Rejection of Rational Arguments for God's Existence

While evangelicals of the Calvinistic persuasion have generally not emphasized the value of the so-called theistic arguments as compelling acknowledgement of God's existence, Roman Catholic theologians and Protestants of the more Arminian alignment have placed great stress on these arguments. The scientists who comprise the authorship of this symposium, however, are not persuaded. They simply do not accept such methods of proof, showing that the real issue lies much deeper than experience and logic, on the level of presuppositions and assumptions. Hoagland's words attest this: "The existence of God can neither be proved nor disproved by methods acceptable to most scientists . . ." (p. 27). They simply say to the Romanist and Arminian, in effect, "I don't accept this method of proof." Kemble goes further: "As a scientist I am instinctively an empiricist, with a healthy skepticism regarding a priori arguments that start with a postulate to be accepted because its converse is inconceivable" (p. 244).

Explanation of Theistic Belief as Merely Human Drive

The second step fits logically with the first. Those who disbelieve personally must explain the empirical fact that others believe. Hoagland's approach to this problem is to cite the ability of nervous systems "to co-ordinate response to the organism as a whole in terms of the total environment" (pp. 20-21). This ability, which has "great biological survival value" becomes the supposed basis for man's inventing belief in God. "Thus the drive for a monistic viewpoint and a monotheistic god may be an attempt on our part to close a Gestalt and to unify our universe" (pp. 20-21). Perhaps the same could be said concerning the theory of evolution.

Elimination of God as Necessary to Scientific Explanation

Gerald Holton pictures in his "Notes on the Religious Orientation of Scientists" a view of God's relationship to the universe which was ostensibly held by Isaac Newton. This view is often referred to in contemporary discussions as the "God of the Gaps" Theory. By this theory, God's activity is confined to those areas of nature which scientists are not able to explain by "natural law" (p. 135). The outcome is, as Holton puts it, "As science has pushed back the

frontiers of the unknown, it has made untenable the position of the theologians who argued as Newton did, and has left fewer and fewer chores for the Deity in the everyday function of the world" (p. 60). Thus God is unneeded because "natural laws" do what God was formerly thought needed to accomplish. The failure of Newton and other real Christians, as well as the modern naturalistic scientists, is in not seeing that natural laws are not self-operating, and that God upholds and sustains the known operations of His universe as well as the unknown.

Consideration of Natural Laws as Self-Existent

The fourth step in the scientist's reasoning about God is thus anticipated in the third step. Since God's sphere is reckoned to be the unknown, that which gradually supplants Him is the scientist's understanding of natural laws. These are held to be eternal, immutable, universal, and self-existent. "The rules for stable configurations and for energy transformations," believes Burhoe, "have presumably remained the same for billions of years . . ." (p. 80). Again, these rules "are presumed to be essentially universal and invarient laws of operation" (p. 80).

And yet, with all his flair for inductive study, the "empiricist" finds it necessary at this juncture to venture into the world of deduction. Mather takes the first faltering steps. A world of law and order, he relates, "is a world obedient to administrative regulations. An orderly, law-abiding and therefore comprehensive process, such as evolution appears to be demands the recognition of an administration of some kind" (p. 39). So far so good. He even suggests that the nature of the "something" which "governs" the universe should be "left wide open for further study" (p. 40). But the open door soon closes: "Specifically, theologians should note that 'administration' is not synonymous with 'administrator.' The latter term has connotations that are not necessarily ruled out of consideration in connection with the former, but they are definitely not implied when the former term is used in a scientific context" (p. 40). But is not administration that which an administrator does? Can one really have the former without the work of the latter? The naturalistic scientist seems to believe so. Indeed, he recognizes that this administration is capable of organization, and "seems to be permissive rather than coersive" (p. 41). Apparently, logic fails in the face of the antitheistic faith of the scientist.

Acceptance of Pantheism

The last step is therefore quite easy. Burhoe takes it in stride. "God" is recognized in the unity, universality, and orderliness of the laws of nature (pp. 80-83). Murray affirms this faith: "The great God of creativity has been from the start and is today immanent in nature and immanent in us" (p. 178). Dobzhansky worships the god of science, "the God who includes Creation in His divine being" (p. 135).

IV. SOTERIOLOGY AND ESCHATOLOGY

On the basis of the scientific method as an authority, with their view of man as an autonomous evolutionary product, with their god the cosmic soul patterned after man's image, the writers of Science Ponders Religion set forth their view of the new religion to be constructed

upon these foundations. This section will examine the nature of the salvation this religion is to provide for them and the utopia it will construct for all men.

That at least an attempt will be made to do this seems to be the unanimous conclusion of the symposium's writers. Margenau speaks of a "science" of religion to be developed, although he feels that its pattern of development is as yet hard to predict (p. 115). Murray's conviction is that "Whatever may be the nature of this religion of the future, a good many of us believe that it will have to be compatible with science" (p. 151). New conditions of life brought in by science make such a "scientific religion" mandatory, believes Burhoe (pp. 66, 67).

The means of constructing this new religion is through the sciences of man: anthropology, the social sciences, and the humanities. Herrick bids us heed the warning by a Professor Haydon that "by too much faith in gods and other worlds and too little faith in man, a practical program of vital religion has been all too long delayed" (pp. 305, 306). Herrick goes on to tell, "The sciences of man provide us with our most powerful implements of cultural development" (pp. 305, 306).

For the task the "sciences of man" are to accomplish, a special definition of religion is necessary. Burhoe submits that religions "are the organs or institutions whose function it is to engender attitudes and behavior that tend to adapt man to the conditions of his total environment in such a way as to optimize his prime values" (p. 67). While the above is probably a worthy attempt to define a nearly indefinable subject, Burhoe has surely not excluded from the limits of his definition such procedures as going to the dentist, or, if the subject is appropriately modified, the wandering of wolves in packs in search of food. Gordon H. Clark, in his Religion, Reason, and Revelation, builds a good case for the impossibility of defining religion as a general term.

Another attempt is a little more specific, yet still seems to fail. Fischer considers religion to be "the ritual cultivation of socially approved values" (p. 219). By this definition even a baseball game becomes a religious event. Its procedures are clearly ritualistic and its social approval and value is undeniable.

In spite of problems of definition our authors give religion a definite role to be played in the future. It is "to create an atmosphere in which the efforts of others will have greater success," which means that it is to provide the conditions of good morals, freedom, education, and material well-being as its legitimate function in society (p. 51).

The procedure to be followed in reforming and re-directing religion for these purposes is clearly set forth. Since, as Gerard points out, most people will not be appealed to and influenced by a purely rational religion, something with more emotional appeal is necessary (p. 98). Fischer holds that the new religion is not merely "the science of values, but rather an art of cultivating values" (p. 259). What is deemed needed is "purified ritual and symbolism." By an eclectic process useful rituals may be gathered from many sources. ". . . Symbols and rituals of universal value and significance can be found in many religions throughout the world, and if we judge them by their evocations of emotion rather than their literal cognitive content,

there is strong reason for us to adopt them" (p. 241). One wonders how lasting and valid would be actions based on temporary "evocations of emotion" if all "literal cognitive content" were stripped away.

One of the means of "evocation of emotion" to be used is the sex drive. Murray unabashedly suggests that "mutual erotic love, erotic adoration, is the most natural religion, far stronger and more natural than a son's adoration for his father, the father-son relationship (with mother and daughter omitted) having been from the beginning the mythic paradigm of Christianity" (p. 178). And this "mutual erotic love" is not necessarily within the marriage relationship. Murray prefaces the above remarks with the view: ". . . perfect chastity does not stand out as the highest ideal for our time" (p. 178). Apparently the new religion is not so new, but may be a re-incarnation of the abomination of the Canaanites which led to their extermination from the earth.

Another means of controlling the religious future of mankind is through the application of drugs upon the chemistry of the brain. Hoagland speaks of "experiences of trancendent mysticism" produced in individuals by the action of drugs upon the brain (p. 20). Gerard thinks that a "St. Francis" might be produced in this manner out of an ordinary man, even as certain brain operations have made wildcats into docile animals (p. 90 cf. p. 98).

The result of these procedures by scientists, it is hoped, will be a utopia. "The golden age for man--if any--is in the future, not the past," due to the continuing processes of evolution. And the "Messiah" to usher this age in will be science.

Surprisingly, at least so to this writer, the "last enemy" is not to be "put away" by this messiah. Death is not envisioned as being overcome for the individual; at least none of the writers express such an expectation. On the contrary, "death is explained by science as a necessary element in the developing of any genotype, including man's" (p. 84). Instead of hope of eternal life, self-sacrifice for the whole is "the order of the day." Huntsman puts it so:

> . . . if, in the ceaseless change that forms time, we seem to pass away from this life just as we came into it, we will never-the-less in some forms or ways share in the eternal future even as we are products of the eternal past. We have been created by the whole and we share in future creation (p. 184).

But whether or not death for the individual is certain, the future of the human race is seen as in jeopardy. Shapley foresees an ethical crisis in human society.

> If atomic war tools are available to angry and vain and stupid men, and are used--then a grim final curtain will close the human play on this planet. It will truly be a judgement day--a day of our own bad judgement. The galaxies will continue to rotate, without concern for little Planet No. 3 and its highest life (which is not quite high enough). The sun will bountifully pour its energy into space, but not for Homo. He will be through because he has not learned to live with himself (p. 12).

Shapley thus sees two alternatives for man with regard to nuclear energy: he "can extinguish himself and others," or he "can peacefully use that nuclear energy for the enrichment of human culture" (p. 2). Which he does depends on the ethics he develops. "We need an ethical system for now--for this atomic age--rather than for the human society of two thousand years ago. Cautiously we must modernize, but certainly" (pp. 11, 12).

Hoagland wrestles with the problem of ethics without divine standards. "Loss of traditional religious faith," he believes, "does not in itself imply the analogy of a rudderless ship or a collapse of ethics . . . the values by which men live are not contingent upon supernatural sanctions" (pp. 17, 18). He pictures supernaturalism as the historic scaffolding of values of ethical conduct--the scaffolding may now be torn down (p. 27). But the choice of metaphor is subject to question. Scripture presents supernatural sanctions as foundational to ethics; when the building is completed the foundation cannot safely be removed. Hoagland's answer to this would be that "in practice the agnostic scientist is an ethical person" (p. 25). But the suspicion remains that he simply adopted his ethics second hand from the Christian society around him. Philosophically, the establishment of an ethical system of a naturalistic basis has been a difficult task. Hoagland mentions this objection to his view in the subsequent discussion but sidesteps rather than answers the charge (p. 26).

In spite of this, the symposium writers call for a new, scientifically-based ethics. The basis is not theistic, but socialistic. We must, they say, frankly "assume as a working hypothesis that good and evil are purely products of man and his relation to his environment, particularly to his social environment" (p. 24). On an evolutionary basis, "Good is anything that promotes advance, evil anything that retards advance, and religion is man's effort to promote advance" (p. 47).

In light of this proposed religion, a new attitude toward the existing religions must be broached. Herrick writes,

> Since we have to live with religion whether we like it or not, it must be recognized that its abolition is neither practicable nor desirable. What we should do is to try in every possible way to redirect all religious thought and practice away from its evil perversions, and toward those true values that come to expression in refined standards of personal morality and social responsibility (underlining mine, pp. 306, 307).

Thus the "manifesto" of the new religion calls for a "subversion" of existing religions into the new mold. There is to be a "stripping" process to be applied to them before "co-existence" is achieved: a "rigorously mechanistic science may keep the peace with a rational supernaturalism stripped of the crude mythologies and traditional dogma with which it is usually garnished" (underlining mine, p. 290).

We close this study with the glimpse of the future afforded us by Fischer, to be realized by the infiltration of existing religious groups in order to pattern their beliefs after the "scientific" image. Conservative groups especially should be warned of this clear threat to their freedom to propagate:

. . . I wish to make a few predictions about the future of religion in our society. It seems clear that barring major catastrophes scientific knowledge of the universe and man's place in it will continue to grow rapidly in the foreseeable future. This growth of science can only have the long-run effect of tending toward the elimination of all magical and pseudoscientific traits from religion; that is, the elimination of all claims of religion to have any direct control of, or to serve as a primary source of information about anything other than the evaluative aspect of the mind of man. This state may be approached through progressive modifications in the beliefs and practices of existing sects or by an increase in the influence of sects which have already largely rid themselves of such traits at the expense of more conservative sects, or in both ways (underlining mine, pp. 238, 239).