

ON LIFE'S PURPOSE

SCIENTIFIC CONTRIBUTIONS AND RELIGIOUS GOALS

by Herbert H. Uhlig

Man's search for the meaning of life has been expressed since earliest times in his religious beliefs. The dramatic events of birth and death in an otherwise routine struggle to stay alive must particularly have awakened in him a primitive consciousness of pattern and plan. As he evolved into a more rational being, it was irrational that the coming and going of endless human generations, each facing similar problems and reaching anew for tenuous happiness, should have no significance. Somewhere in time, life presumably had a beginning and purpose, and somewhere there must be an end and a fulfilment of that purpose. Although this faith continues to be assailed by the skeptics, all religions of the world embrace it in some degree.

In the Judeo-Christian tradition, the faith that life has purpose is summarized in the Scriptures, combined with an extensive effort to document it in the record of the experiences and struggles of the Hebrew people. Throughout the various chapters, the Scriptures portray a developing purpose and meaning of life, synonymous with an evolving concept of God.

It was much later in the sequence of human progression that man systematically questioned and explored both himself and his surroundings and when the modern scientific point of view began to exert its effect on human consciousness. This new outlook brought many fundamental changes within a remarkably short time, considering that the scientific method was introduced not much earlier than the time of Galileo, in the sixteenth and seventeenth centuries. It brought the new point of view that philosophizing about God and nature, popularized by the Greeks, had its inconsistencies and hazards and that more was to be gained by probing nature and humbly seeking the answers with which nature responded. The emphasis was placed not so much on what was intuitively rational as on what actually happened.

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It first had to be established, of course, that nature would in fact consistently supply the same answers to the same questions, invariant in space or time, and that such answers would actually be forthcoming, assuming the questioner to be sufficiently skilful and patient. The new faith and the new approach succeeded beyond measure, as we now know, and became an increasingly powerful human tool. As a result, an impressive body of truth was assembled which met all the tests of intellectual satisfaction and everyday practicality.

Unfortunately, it did not always meet the requirements of organized religion, which had been established long before the scientific approach was developed. There were inevitable conflicts on matters of interpretation or of history as it was supposedly revealed in the Scriptures, on the one hand, and in nature, on the other. Early theologians expressed doubt that scientific conclusions, such as those related to the age and position of the earth, were really valid, and they questioned whether the scientific method was applicable in more than a narrow area of inquiry. Science was perhaps tolerable if confined to the merely immediate physical world; it was certainly not welcomed in the experientially more remote areas of human speculation where theologians had already committed themselves to a firm opinion. There is continuing debate even today as to how far the scientific approach can reasonably be applied to human affairs with any degree of confidence in the outcome. Historically, the scientist, in common with the theologian, has not always proved himself right; yet in principle he maintained rightly that, if apparently correct answers are forthcoming within the compass of the physical world, man ought also by implication to heed nature's response to more general inquiries, whether or not they overlap the traditional jurisdictions of nonscientific disciplines. It is this point of view which provides the basis for discussing the interaction of science and religion.

It can probably be said unequivocally that the scientific approach to truth, whatever the area of human interest, has rapidly gained general attention, if not general acceptance. More often than not, conclusions achieved through science now succeed at least in obtaining a hearing by those within both cultures described by C. P. Snow. It is perhaps also correct to say that the full impact of this changing situation on religious thinking is still in the making. Traditional faiths have been placed on the defensive; a shuffling of emphasis has already become discernible. To some individuals, the ferment of new ideas has driven them to refuge in religious ritualism; to others, it has kindled the signal, or confirmed an earlier urge, to abandon the religious approach

and to assume that the cosmos and all of life within it has no purpose. By this particular *Weltanschauung*, we are all again adrift with earlier man in search of God. However, doubt is now expressed that God is necessary. Presumably, what is thought to remain is only an indifferent material universe heading toward maximum entropy, meaning the eventual end of available energy to support life.

It seems to me, however, despite the unemotional answers by nature to often emotionally charged questions, that misunderstanding or lack of understanding, not modern science, has impelled an outlook so pessimistic. Instead, as has been adequately pointed out by others many times, the integrated truth presented by scientific inquiry has never denied but, rather, has consistently given a substantial share of support to the idea of God and to the concept that life has meaning. This situation has not changed. Science has, furthermore, cleared away what organized religion has not, namely, the clouds of superstition and environmental mysticism which have hung over man since early dawn and have handicapped him in arriving at a clearer concept of God. Science portrays an orderly universe amenable to human understanding and not subject to flighty whim, capricious action, or temperamental edict. And, significantly, as is discussed later, the direction of life toward which science apparently points overlaps the trend and purpose expressed formerly by the great religious leaders who arrived at truth by different routes.

SCIENTIFIC CONTRIBUTIONS

If I interpret correctly the contributions of science to the present-day outlook on life, I discern the following important conclusions:

1. Life has been and continues to be a struggle for survival. Those species survive which successfully adapt to an ever-changing, yet, at a deeper level of analysis, not capricious, environment.

2. Progress within any one species is spearheaded by individuals who by "chance" experience a favorable genetic mutation that provides adaptation to the environing realities. This advantage of the individual, in turn, is passed on to succeeding generations until all members of the species benefit similarly.

3. The trend of organic evolution has been in the direction of greater complexity—from simple cells to complex organisms of cells. Increasing complexity in turn has been accompanied by a trend toward greater freedom of the individual. Simple living cells that drifted with the current or, like mollusks, were anchored to a fixed site evolved into forms possessing motility and greater awareness. First, fins and later,

wings and legs, together with sense organs and co-ordinating nervous systems, improved the successful interaction of species with their surroundings. Finally, the human brain brought to man the greatest freedom of all in providing for masterful administration by a species of its environment. Lecomte du Noüy pointed out that, in accord with observable biological trends, "The criterion of adaptation is usefulness. . . . The criterion of evolution is liberty."¹

4. Biological characteristics, especially genetic pattern and brain capacity, establish that all races of men are related and possess a similar underlying potential for improvement.

5. Research is an unending quest for truth about the world and self, which process may be said to be a continuation of the quest for better adaptation to the requirements of life. The answer to one inquiry is apt to open up many more questions, but advances are nonetheless unmistakable, for example, the increasing conquest of disease, improved transportation and communication, secure food supplies, and better shelter.

The life sciences have described quite logically that the pattern of sexual reproduction in higher forms of life provides for maximum combination and permutation of differing genes distributed throughout the species, which produces unique genetic structures in the offspring. In this manner, novel variations of inherited organs, senses, and adaptive skills, which can be tested against the changing environment, are favored. If successful, they increase chances for survival.

This biological pattern is also followed by the human race in its continuing effort to forge ahead. Both the unique gene structure of each individual, literally as different as is a fingerprint from that of any other human being, plus a limited life span make possible a continuing new approach to old problems and, more important, to entirely new ones. The highly developed human brain, in turn, has greatly accelerated the distribution of advantages gained by any one individual which are of potential value to all individuals. Progress no longer depends entirely, as it did earlier, on the inheritance of genetic advantage—a slow process at best—but now proceeds directly by means of speech and written records from the advanced individual to the group, or from one generation to the next. Useful ideas and concepts, meeting the test of time, become firmly established in the culture and tradition of the race.

Through the successive accumulation of advantages gained in this way, man in harmony with the evolutionary pattern has experienced continuously greater freedom. He has increasingly extricated himself

from the bondage of disease, starvation, and physical isolation. And in the twentieth century he has finally advanced to the point of planning cautious excursions into the nearby regions surrounding the infinitesimal planet on which all of life, as we know it, has been imprisoned for millions of years. The still greater freedom that lies latent in the endless regions outside the confines of the solar system and the Milky Way is beyond simple imagination.

RELIGIOUS CONTRIBUTIONS

The Christian tradition, insofar as I interpret it, has also established that there are definite goals for man in present and future generations. The language of the Scriptures, of course, is not expressed in modern scientific terms. There is no description of the electron, electromagnetic radiation, or of organic evolution; but there is the view that life has purpose, and the trend of that purpose is clearly outlined. In this respect, the important conclusions that can be derived from the biblical record are as follows:

1. Human life is a struggle to adapt to the demanding ideals of spiritual values over and above the easier values of the "flesh" (our animal background). Salvation (survival) of man depends on his continuing identification with the values that represent God (such as truth, justice, charity, mercy) and the brotherhood of man: "You shall love the Lord your God. . . . You shall love your neighbor as yourself" (Matt. 22:37-39).

2. Man should seek to know God, in whose image he is created. "Seek ye the Kingdom of God" (Luke 12:31). This search, like scientific investigation, is an unending quest but with many practical advantages accruing in the meantime, such as improved moral codes, the development of social justice, the lending of dignity to work and industry, and the inculcating of an urge to improve and progress. As Robert Clark pointed out, "A universe made by a God, infinite in power and knowledge, is likely to be forever beyond the understanding of man. Science is an unending task. The joy of discovery will never be denied to future generations."² The God of the Scriptures, whom man is advised to seek, is identified with truth: "He is the rock, his work is perfect; . . . a God of truth" (Deut. 32:4); "I am the Way, the Truth, and the Life" (John 14:6). The meaning of such truth has a wealth of interpretation, but it certainly embraces the objectives of scientific investigation. Probing nature, in other words, is one of the many ways of seeking out God.

3. An important goal of life is increased freedom. As has been expressed by others, God's image is reflected in the free will of man to

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choose his own evolutionary path and to guide his own destiny. Of the conservatively estimated two million living species, man has the freest choice to follow a path of his own making. The greater ultimate freedom of man, as expressed in the Scriptures, derives from his learning more of the truth and from his directing himself accordingly. In this achievement, he will approach closest to his maker, who is correlated with ultimate realities or truth as well as with freedom and spiritual perfection: "And ye shall know the truth, and the truth shall make you free" (John 8:32); "And where the Spirit of the Lord is, there is liberty" (II Cor. 3:17); "Be ye therefore perfect, even as your Father which is in Heaven is perfect" (Matt. 5:48).

CONVERGING TRENDS AND PURPOSE

The qualities necessary to the survival of man in an earlier era were focused on genetic or "instinctive" strength and wisdom; later, superior intellectual qualities and socially transmitted wisdom proved to be important. The warning flash has recently become unmistakable that, at the present stage of man's development, elementary spiritual qualities have still greater survival value and are most important of all. There is consensus in the feeling, for example, quite apart from any religious convictions, that the know-how of the atomic bomb or of mass-produced drugs is safe in the hands of socially aware individuals imbued with a sense of responsibility to their fellow men; such knowledge is doubtfully entrusted to those, however intelligent, whose concern for the human race has not progressed beyond primitive standards. It is, in consequence, the spiritual evolution of man which the Scriptures with good reason emphasize, the need for which is increasingly apparent. Such an evolution should confer, among other advantages, an improved social responsibility.

In his struggle for spiritual maturity, man is implored by the Scriptures to seek truth, not to shun it. Truth from whatever source, including scientific probing, contributes to the sustained evolution of man toward more acceptable codes of behavior: "Prove [i.e., "test"] all things, hold fast that which is good" (I Thess. 5:21). In other words, broadly interpreted, the acceptance of Christian goals could lead directly to greater security and to expanding freedom, including, presumably, more of the advantages and fewer of the disadvantages of a technologically advanced civilization. And, equally important, acceptance could provide freedom from constraints placed on man by his immediate or distant environment and by continued frustrating con-

flict with his neighbors. If, on the other hand, he does not accept them, he risks joining that list of once-living species which were damned to extinction by their own inability to keep up with a changing environment.

Science has spectacularly demonstrated some of the advantages that can come from a dedicated search for truth. It has in another sense also made clear, through revealing the secret of nuclear energy, for example, that man had better live with his own species as brothers, which in scientific perspective they are, if he is not to annihilate himself from the face of the earth. The hoped-for salvation of man in these terms is no longer a vague religious concept applying to a symbolic heaven; it becomes instead a very practical matter pertaining to the short-range prospects of life or death for millions of the earth's inhabitants.

The human species, as was mentioned earlier, by following the same biological pattern pursued by other higher forms of life, is made up of literally new and unique individuals, genetically speaking, in each generation. These individualistic "quanta" of the human race bring continuing creative ideas and fresh approaches to human aspirations. The progress of mankind, like the progress of other species of organic life, is spearheaded by individuals of superior advantage or of advanced talent. Much of the intellectual progress of the present human generation, for example, including progress in the areas of science, has come from a relatively few gifted individuals of unusual mental attainment (possessing "accidentally" advantageous genes). These forerunners of progress spring unpredictably from all social groups practicing minimum standards of education, without regard to affluence, race, or color. Their major contributions eventually become the property of all human beings who are able and willing to accept improvement. It is reasonable to expect that the superior level of mental achievement that such individuals possess, when in harmony with evolutionary requirements, would eventually express itself after many generations in a generally higher biological level of intelligence in the human population.

Similarly, the guidelines of spiritual values socially transmitted to our present cultural generation, and which over many preceding years have made civilization possible, were contributed by several advanced spiritual leaders who pointed the way in which man should evolve. Their expression of values has in large part become incorporated into human practice and has become a component of modern culture. The spiritual leader who probably exerted the greatest influence on West-

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ern culture was Jesus of Nazareth. The values and goals attributed to him are ideals which, although not yet attained by any large segment of human society, continue as marks of spiritual distinction for all mankind. He spearheaded what man may become. His precepts of personal conduct, if accepted by (and subsequently permeating) the human race, would probably bring man appreciably closer to God and to the spiritual truths God represents. And, of more immediate importance, such precepts possibly constitute the best path to guarantee man's survival in his continuing evolutionary struggle. In this sense, Jesus fulfilled the role ascribed to him as Savior of mankind. The spirit of God or religious truth was certainly within him, as is evidenced by the enormous influence for good exerted by his teaching.

The destiny of human life, therefore, can be interpreted similarly in terms either of Christian doctrine or of the conclusions of modern science. On either basis, the evolution of man continues. It is represented by his daily effort to improve upon the accomplishments of preceding generations and to improve himself. And it seems certain that evolve he must if he is to survive or, in religious terminology, if he is to be saved. An important objective of evolution on the basis of either science or Christianity is the increased freedom of the individual. According to science, one of the major goals or values of man's destiny is freedom from the constraints of environment, either earthly or cosmological. According to Christianity, it is not only this but also freedom from the constraints imposed on man by his animal origin.³ Christianity has expressed this as the freedom to acquire, more and more, those ultimate qualities of life represented only in God.

The unending quest for God revealed through religious teaching and the unending quest for truth revealed through scientific research are noble objectives of human activity and can be considered one and the same. They both lead to the "more abundant life," and, as Charles Townes stated, "They both represent man's efforts to understand his universe and must ultimately be dealing with the same substance."⁴ The available evidence supports Robert Clark, who concluded, "Rightly understood, science and religion are seen not to be at variance but in the closest partnership. Once foolish misunderstandings are cleared out of the way, we may be sure that the more we learn of scientific discovery and of the scientific method, the easier we shall find it to discover for ourselves those truths of Christianity which make sense of our existence here on earth and supply a joy and sense of purpose to life both here and hereafter."⁵

NOTES

1. Lecomte du Nouÿ, *Human Destiny* (London: Longmans, Green & Co., 1946), pp. 86-87.
2. Robert E. D. Clark, *Christian Belief and Science* (London: English Universities Press, 1960), pp. 57-58.
3. The editor has brought to my attention the fact that a number of biological and psychosocial scientists, who have recently been seeking to understand cultural or psychosocial evolution, have also been pointing to man's self-transcendence of his biological or genotypically prescribed nature. Among these is Theodosius Dobzhansky, who writes of "evolutionary transcendence" and "self-transcendence" in his *Biology of Ultimate Concern* (New York: New American Library, 1967) as the novel ways in which man can psychologically and culturally arrange new and improved patterns going beyond the limits of previous patternings of the components supplied to him by genetic and cosmic evolution. On page 45 Dobzhansky notes, "It is in this sense that [A. I.] Hallowell wrote, 'The psychological basis of culture lies not only in a capacity for highly complex forms of learning but in a capacity for transcending what is learned, a potentiality for innovation, creativity, reorganization and change.' Erich Fromm wrote that man 'is driven by the urge to transcend the role of the creature. . . .'"
4. Charles Townes, "The Convergence of Science and Religion," *Zygon*, I, No. 3 (September, 1966), 310.
5. Clark, *op. cit.*, p. 160.