

Towards An Islamic Critique of Anthropological Evolutionism¹*

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I. THE BIOLOGY-CULTURE CONNECTION IN THE HISTORY OF ANTHROPOLOGICAL THOUGHT

The story of modern anthropology is a story of the Euro-American attempt to discover the other than Euro-American human being. Within that story is the story of the intellectual self-discovery of the Euro-American; within that is the story of the discovery of racism; within that is the story of political and ideological pressures on the processes of such discoveries; within that the amazing and wonderful story of the scientific discovery of the worldly nature of the human being – conceptualized generally: across all space and time, all colors and languages; and within that story is a story of the social and natural sciences: of their methods, results, potentialities, and pitfalls.

If there is a central theme that runs through all these stories within the

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¹Even though a few Muslims have expressed educated opinions on evolutionism, some favorable and others not, (see brief reviews in previous papers by this author 1980 a&b; Bucaille, 1982; Murad, 1984; Mutahhari, 1984) the systematic Islamic study of its principles still has a long way to go. In its first formulation the scope of this paper was defined within the framework of developing a contemporary, Islamic anthropology according to specifications outlined in al-Faruqi, 1982. In revising the paper for publication an attempt has been made to include additional comments made on the paper at the 3rd International Conference on Islamic Thought. The encouragement and comments of many devoted Islamic scholars, who participated in the discussion of the paper when first presented, is gratefully acknowledged. The responsibility for this final formulation is the author's.

story, it is the story of the impact of Darwinian and post-Darwinian biology on the social and human sciences. Modern anthropology is not much more than an evolutionist form of humanism. Evolutionism is to be found in most types of contemporary anthropological studies, as a central position or an implicit assumption. It is clearly axiomatic to thought, analysis, and interpretation in the discipline. As such it is a fundamental issue in the consideration of modern anthropology for inclusion in, and recasting for, Islamic educational purposes. The aim of this presentation is to consider briefly how the impact of Darwin, and of biology after Darwin, on recent anthropological thought may be measured as a step toward developing an Islamic methodology for anthropological research and teaching.

Since its publication in 1859 by Charles Darwin (and Alfred Russell), evolutionary theory has been refined and developed by virtually all life science disciplines and a few other disciplines such as anthropology. Anthropology is rooted partly in the life sciences and partly in the social sciences. Human evolutionary theory developed by anthropologists has gained wide acceptance in all sectors of the Western scientific establishment. Adherence to, and propagation of, an evolutionist world-view has become a symbol of the liberalist mission of Western science in the face of periodic opposition to it coming from conservative, evangelist, Christian fundamentalists, and politicians who represent them. A few of the anti-evolutionists are also scientists (Williams, 1983). They have given leadership to the most recent form of anti-evolutionism, called scientific creationism. Within the scientific and educational community their view is at present a minority view; the dominant view being the pro-evolutionary one. Among the Judeo-Christian population at large, in the United States, surveys indicate that about half of the people give credence to the evolutionary view. The others either do not or do not care.

An effect of post-Darwinian natural science on social science was to bring human evolution into focus as incorporating psychological, social, and cultural aspects in addition to the biological (see e.g. in Eiseley, 1958; Freeman, 1974; Harris, 1968; Opler, 1964; Reed, 1961; Stocking, 1968). The historical relationship of bio-evolutionary theory to the social sciences in general and specifically to anthropology, is complex. Nowadays it is one of the dependence of the latter on the former. It has been argued, however, that in its formative years, Darwinian evolutionary theory was in fact an application of social science concepts to biology. Darwin himself acknowledged that the Malthusian statement of the principle that human population, when unchecked, increases in geometrical ratio while subsistence increases only in arithmetical ratio, influenced his idea of natural selection. The subsequent acceptance of Mendelian genetics, on which the modern form of evolutionism rests, quickly transformed even the fundamental social science principles of the study of human races and variation. The continuing success of the biological sciences

in regard to such human problems as disease and population, and in regard to the possibilities of genetic engineering has led to the very recent creation of sociobiology (Wilson, 1971, 1979). This development underscores the preoccupation with the biological level in modern Western social scientific and humanities studies.

On the positive side of the product of the biology and social science relationship and specifically evolutionism and anthropology relationship is the resulting increase in the scientific sophistication of terminologies, concepts and measurements of variables. The impetus to study possible evolutionary relationships has made it necessary for anthropologists to concern themselves not only with biology *per se*, but also with increasing the rigor of the techniques by which they gather and interpret their own data. Evolutionism is clearly a source of the increasing tendency to be scientific and empirical in the study of human nature and phenomena. At the level of theory, the evolutionary paradigm has provided to social and cultural anthropologists a model which can be employed for the description and comparison of the phenomena that engage their attention. The application of the logic and procedures of evolutionist biology, ecology and so forth have become popular in anthropological approaches to social and cultural research (see e.g. Diener, 1980; Goodenough, 1981).

Evolutionism has also provided coherence to the anthropological idea of culture in attempts to write a unified natural history of the interaction between man and his environment in terms of his culture, biology, and language. Goodenough *op.cit.* has shown how the analysis of the standards, values, preferences, and other constituents of the culture of a people gain much when treated as if they were the elements of something that is analogous in structure to the biological abstraction of a gene pool. Items from a "culture pool" are seen by him to be selected by individuals in an evolutionary pattern as genes are known to be selected in nature from a gene pool. Selection for survival and evolution is seen to be inherent in the domains of culture and language as it is inherent in biological process.

The dominance of evolutionary thought in this and many other diverse foundations of social, psychological and cultural anthropology has itself evolved in the political context of Euro-American dominance over most other peoples in the world, as part of an ideology that has deep racist roots. The milieu of the debate on the political economy of early industrial capitalism provided Darwin with the language with which to express his findings on biological processes. The milieu of the debate over Darwin's theories provided the language for the expression of theories of social and cultural evolution. In the original 19th century anthropological programme the psychological distance separating the gorilla from the gentleman, between instinct and reason, was to be bridged by the study of the evolution of savages and prehistoric man.

The stages of human evolutionary development, an important ingredient of anthropological evolutionism were thus crucial. They filled the gap between the ending of organic evolution, the principles of which Darwin had mastered, and the beginnings (and/or primitives) of civilization which the cultural anthropologists aim to discover. Since the publication of Darwin's theory, evolutionary theories of progress and civilizational development have allied with science and secularism against religion (albeit Christian religion) to provide a sense of mission to the idea of anthropological study. Beyond anthropology, a broad evolutionist worldview has become a symbol of Western science, even though it has had to face Western religious and political opposition from time to time. It is thus necessary to remind ourselves at the outset that the development as well as the refutation of anthropological evolutionism has occurred in a political ideological, and intellectual context far removed from Islam.

II. A CRITICAL SURVEY OF ANTHROPOLOGICAL EVOLUTIONISM

A. BIOLOGICAL ANTHROPOLOGY

1. Biological or physical anthropology, the anthropological counterpart of the various biological sciences that study the human being, represents the core of evolutionist anthropology. Contemporary anthropological discussions of the theory of evolution (as e.g. in Campbell, 1982; Dobzansky, 1962) attempt to incorporate developments coming out of *mutation theory* based in the early 20th century discovery of the mechanisms of genetic transmission of physical characteristics, with *selection theory* which was the basis of the earlier Darwinian formulation, into a generalized theoretical system which interprets the evolutionary process. The accepted theoretical system has provided to anthropologists a basis for outlining a comprehensive view of human history which is inextricably linked to the history of all organic life.

A good illustration of micro-evolutionary studies in which principles derived from mutation and selection theories as well as economic and cultural variables and principles combined in the solution of a practical problem is provided by the study of a blood disease called sickle cell anemia. Livingston (1960), Allison (1956), and others have successfully validated hypotheses derived from evolutionary principles of mutation, adaptation, and selection by demonstrating relationships among the occurrence of the sickle cell gene, falciparum malaria, and specific agricultural practices in certain human populations. While the sickle cell disease is fatal, carriers of the trait for the disease (i.e. those who had inherited a sickle cell gene from one parent

and a normal gene from the other) were relatively resistant to malaria. Malaria is endemic to agricultural regions where methods of irrigation conducive to the malarial mosquito are practised. As such, in terms of normal evolutionary laws, the persistence of the sickle cell gene in human populations in portions of West Africa, southern Italy, Sicily, Greece, Turkey, and India could be explained as due to its adaptive value. Those laws also explain the decreasing incidence of the trait in the same populations living in the non-malarial North American environment.

Other interesting studies utilizing the same principles and techniques include studies of relationships among possible adaptations of the human body to such environmental factors as extreme cold or heat (Coon, *et. al.*, 1950); and among environmental factors and human stature (height, weight), disease, and nutrition (see a review in Bennet *et. al.*, 1975).

These studies may be usefully contrasted with earlier studies (e.g. Ibn Khaldun, Vol. I: 167-183) of the same or related problems. Ibn Khaldun's summaries of studies which he and other earlier Greek and Arab scholars had done in these areas did not have the benefit of modern physiology or the necessity to demonstrate observed regularities and relationships in quantitative terms. In the recently burgeoning context of Muslim interest in the reconciliation of Islam with Western science, Bucaille (1982), Khan (1976, 1977), and Abdul-Wadud (1971) have made useful contributions utilizing ideas implied in some Qur'anic statements regarding essential life processes as well as ideas current in human physiology and evolutionary biology. It is also worth noting that the knowledge pertaining to the principles of biological inheritance that was available to Darwin when he was formulating his theory of natural selection included the experience and studies of farmers and other animal and plant breeders from many parts of the world, including Arab falconers, Cairene pigeon breeders, and the Indian sultan, Aurangzeb, who was also a scholar of religion and a naturalist.

2. *Macro-human-evolutionary studies* (see illustrations in Brace, 1979; Campbell, 1982; Scientific American Readings, 1967, 1972; Washburn and Moore, 1974) with roots in paleontology tend to concentrate on, and elaborate the broad time framework and systematic concerns of evolutionary theory in anthropology. They define the earliest stage of human evolution in terms of phylogenetic separations of various stocks and families of animals, believed to have occurred millions of years ago, and aim to provide a scientific recording and explanation of the history of the animal that so emerged and evolved into modern man. The speciation believed to have led to the human descendant begins with the replacement of physiological specializations by the ability to develop human, cultural specializations. Such a conceptualization of human origins, distinctly evolutionary in scope, led to the search for, and discovery of, skeletal evidence for changes relative to such

human characteristics as an erect posture, bipedal locomation, and opposable thumb, and a large brain capacity. There has also been scientific acceptance of a chronology of such changes spanning several millions of years. The scanty fossil bone and lithic evidence dug up from sites found all over the world has been minutely studied and made up into amazing complexes of anatomical, behavioral and environmental types that mark off crucial change points in the supposed pre-human history of the human being. The changes so demonstrated to have taken place have been interpreted as the record of an organized evolutionary response in human nature to be studied in terms of developments in tool use, language, and culture. Although there is much disagreement on the classification of the reconstructed fossil remains as belong to this or the other pre and/or early human population, they are expected to be resolved through further research.

As seen in the Qur'anic verses pertaining to the transformation of clay and water into the human being, as well as in the ruminative and exploratory works of al-Jahiz, al-Mas'udi, the Ikhwan al safa, and others of the Islamic intellectual heritage, notions of the wholeness and fundamental unity of all creation are not alien to Islamic thought. Ahmad ibn Umar al-'Arudi (12th century CE) even wrote of *nasnas*, a kind of animal-man missing link, and speculated on continuities among different forms of inorganic and organic forms of life. Archeological and paleontological studies were not unknown to some of the Qur'an exegetes who attempted to explain Qur'an verses such as those pertaining to the city of Iram (Ixxxix:7), or the Companions of the Cave (xviii); or to scholars such as al-Biruni. Time scales extending into the millions of years to explain geologic and other formations are similarly not unknown in Muslim thought (see Sarton, Vol. I:659). One of the major controversies in 19th century European thought that the publication of Darwin's book sparked off, in regard to the chronology of the earth, and the time framework for the understanding of notions of the past extinction of animal species contained in Biblical interpretations of the flood in the story of Noah *'alai salam*, could not have had much relevance to Muslims (see also Bucaille, 1979; Raz, 1980).

Further, as Dr. Ja'far Sheikh Idris has noted, some of the problems in the evolution vs. creation controversy, which some Muslims have picked up on in recent years, are peculiar to the tenets of Christianity. Some people assume that the concepts of creation and evolution are mutually contradictory. In fact, however, there is no contradiction. If you interpret creation to mean just an act which happened once in history there would be a contradiction between the concepts of creation and evolution. Many Christians oppose the concept of evolution based on the belief that God created everything in their perfect forms and types in a single act. They base their belief on elements of their Scripture. The same kind of verses are also found

in the Qur'an. But we know from experience that that kind of creation cannot take place. The supposition of the completion of all of creation by a single act is not a good interpretation of the *ayat* in the Qur'an. Creation is not an action which happened just once in history. Whatever happens in the world is creation. As such all the steps, stages, and developments in the evolution of things in the world are stages of creation. In the Qur'an Allah describes the creation of the human being in terms of the stages of the development of the human fetus. As such creation and evolution are not mutually contradictory.

We must distinguish, however, between evolution and theories of evolution. To illustrate: Christians say that 'Isa *'alai salam*. was crucified. But the Qur'an said that he was not. This is not because crucifixion is contrary to religion. In fact the Qur'an tells us that many prophets were killed or otherwise harmed by other human beings. But as a matter of fact this particular prophet was not crucified. Similarly what the Qur'an asserts regarding the creation of Adam and Hawwa *'alaihima salam* is that, as a matter of fact, they were created in the manner described. The understanding of the significance of that fact in relation to natural processes of evolution that we know of, depends on the adequacy of the theory of evolution to explain that fact. It is mandatory upon Muslims to develop a scientific theory of evolution that is compatible with Qur'anic principles and views.

In developing such a theory it ought to be noted that the fundamental modern anthropological concepts pertaining to human origins (as utilized in macro-evolutionary studies surveyed above) and the associated definitions of human nature are clearly contrary to our views. It is clear that, from the point of view of traditional *tafsir*, the origin of humanity lies in the acquisition of knowledge of the Creator and other related qualitative characteristics. In behavioral terms that origin also coincides with the adoption of language and speech (cf. the reference below to the anthropological notion of "the human revolution"). Such views, however, when placed against the massive tomes of scientific theories and evidence that anthropologists have accumulated, raise a large number of important questions for which clear and comprehensive answers are not available at present.

B. PRIMITIVE CULTURE

Archeological as well as ethnographic principles and methodology have shaped the anthropological view of the human past. The study of the nature of "primitive man", usually based on ethnography, has been the substantial data base for the study of anthropology. Because of reasons connected with evolutionism, issues in the study of non-Western peoples perceived to be un- or semi-civilized were heightened in anthropology at the expense of

others. As a result, anthropological sources available at the present time probably contain more information on non-Western cultures and societies than Western language sources in any other field. The critical study of that information, necessary for the development of an Islamized anthropological discipline requires, among other things, a historical understanding of the evolutionist theories that provided the framework for the collection and analysis of that information.

C. PROGRESS

Next to the idea of primitive culture, the assumption that the entire history of human kind has been a history of progress has been a significant basis for Western anthropological thought. In a recent view of that history (Hockett & Ascher, 1964), humanity has advanced through a series of spurts: the human revolution composed of the acquisition of the ability to speak, the paleolithic revolution signifying the use of stone tools and implements, the neolithic revolution composed of the beginnings of agriculture, the industrial revolution, and so on. Of course, each of these "revolutions" occurred over long periods of time. Such periodizations of history are characteristic of anthropological theories of human evolution. Technological or other material evidence has been the source that anthropologists have been able to rely on in reconstructing and measuring the process of cultural development. There is a curious teleology in the fact that technological development, the basis of Western superiority and dominance in the world, is also the criterion for the universal measurement of man and human achievement in Western anthropological conceptualizations.

This approach contrasts with the approach of early Muslim universal historians and others who attempted to compare "nations" using measures of civilization not limited to technological achievements. In the present context of the Muslim world, however, it would be a terrible error for Muslim thought leaders to ignore "technological man" — i.e., those dimensions in the individual and collective beings of humans that have resulted from technological advance. At the same time, Muslims have to face squarely and in a straightforward manner, as Mutahhari, (*op. cit.*) began to do, the distinction between evolution in the merely material sense, and progress as it would be within the Islamic definition of human purpose. The development of the human ability to define his own purposes and fashion his life accordingly is, after all, the end result of the evolutionary process that even Western scientists believe in (see Simpson, 1960). From an evolutionist point of view, providing substance and leadership to the systematic and collective (*ummatic*) examination of human purposes and social development in the light of the present context of the world and the *umma* would thus be an era of concentration for present and future Muslim anthropological thought leaders. The

idea of cyclical processes of the rise and fall of nations, explicit in the Qur'an and in the early Muslim scholarship, is another necessary key for the opening of the door of new thought in this area for Muslim.

D. *HUMAN ECOLOGY*

Human ecology, in its widest sense of the relationships among man, his technology, and his environment has developed as a specialized branch of the materialist understanding of human history and cultural development which characterizes modern anthropological studies. Thus, e.g. Adams (1960), and Steward (1955), among others combined ecological variables with principles of cultural evolutionism, and other approaches to investigate parallel processes of causation in the growth of complex civilizations from simple agricultural beginnings. Such studies are more than histories of the civilizations they attempted to analyze. They are comparative and attempt to find similarities in subsistence patterns, to construct ecological typologies, and to define the general observable characteristics of early civilizations. The speculations that are being tested on archeological data are derived from interactionist general anthropological evolutionary theory. Others such as White (1959), and Harris (1968) have attempted to restate the determination of culture by factors such as energy storage and production processes.

E. *EVOLUTIONIST ANTHROPOLOGICAL METHODOLOGY*

The foregoing synthesis of the main principles of current evolutionist anthropological thought rely on a wide variety of analyses originating in studies in the various subfields of anthropology noted above as well in archeology, ethnology, linguistics, and even in the study of non-human primitive behavior. These studies have tested formulations derived from anthropological evolutionary theory. Conventional anthropological attempts at synthesis in the formulation of evolutionist problems for study and scholarly debate concerning the interpretation of their results have contributed to the standardization of taxonomies of cultural evolution.

The world-wide variation in technologies of food production, for instance, has been typologized in terms of categories such as hunting and gathering, domestication of animals and plants, horticulture, pastoralism, agriculture, agribusiness, and so on. The anthropological discussion of family and kinship systems is usually couched in terms of such taxonomic categories as nuclear and extended families, bilateral, unilineal, and double unilineal descent rules, tribes, clans, phratries, moieties, etc. The taxonomy of items of culture and social organization incorporates all known elements such as: economic, social and political organization, ideology, the arts, and language. The positive contribution of such anthropological taxonomies is that they make the naming and classification of patterns of human life, necessary for systematic comparative study, possible.

The accumulation of methodologies of such comparative study as well as the impressive and voluminous facts pertaining to social, cultural, economic, legal and other areas of human history and civilization is thus a noteworthy product of anthropological evolutionism. In the Human Relations Area Files (HRAF), for instance, all ethnographic information available up to the fifties has been sampled, coded, sorted and maintained in a form that facilitates the testing of hypotheses on a varied "cross-cultural" base of data. Such sources are not entirely free from bias and other methodological problems, but are probably more comprehensive, and at least as free from biases as any other sources on world-wide distribution of patterns of human civilizational development. Some of the hypotheses tested on the HRAF information have been evolutionary. A computer assisted utilization of the World Ethnographic Atlas, a subsidiary product of the HRAF, for instance, has been attempted to classify significant sociological and ethnomusical covariants of agricultural and pre-agricultural subsistence systems as an evolutionary model (Lomax & Arsenberg, 1977). The technical sophistication of the definition and scoring of variables in such a way as to incorporate them into an analytic computer program is noteworthy.

Such a development is possible given the prior methodological advances in the anthropological collection of cultural data devoted to the cultivation of systematic thought on general evolutionary questions. The resulting taxonomies and typologies leading to the development of a kind of cultural information processing code, have made the encyclopedic cultural information amassed through anthropological means amenable to computer storage, as well as computer assisted analytic techniques.

As Dr. Abdul-Hamid AbuSulayman has noted, however, implicit in the analyses which have utilized such sophisticated techniques and methodologies are assumptions pertaining to history and to the superiority of Western values that are inimical to the Islamic perspective. While impressive data collection and analyses have taken place, some other data and the priority of their analysis have been overlooked. If we begin comparative cultural analyses and define problems for study from Islamic perspectives and principles of the study of history, certain facts would turn out to be more significant than previously recognized. Here clearly is an area for substantive studies that would emphasize the need for increasing our understanding of the contrasts between modern Western and Islamic assumptions regarding human nature, behavior and history.

III. TOWARD AN ISLAMIC CRITIQUE:

A. ANTHROPOLOGISM, EVOLUTIONISM & ISLAM

The preceding all too brief summary of the principles and general historical background of anthropological evolutionism and its methodologies has emphasized the rationalistic and empirical orientation that they have given to western anthropology. It is in that light that the post 19th (CE) century effort to bring cultural scrutiny within the same framework as that of biology is best appreciated. Previous discussions pertaining to these areas of knowledge for the purposes of Islamization have usually been couched in terms of "anthropologism" and "evolutionism". Such labelling, however, is an unfortunate compromise to the needs of simplification in brief presentations.

For the interested student of evolution and anthropology their products are not isms, i.e. positions to take in a debate or dialogue. In an educational context isms convey the meaning of past tendencies in growing academic fields. In giving personality to them there is a danger of making them into ghosts taken out of curricular graveyards and engaging in a vain war with imaginary enemies. A more fruitful approach is to see them for what they really are: steps in a consistent programme of study and research. Each step is but a building block in the growing edifice of science and knowledge. In the long run the value of each of the building blocks is to be weighed in terms of the contribution it makes to the pursuit of knowledge. Given the consistency of Islamic goals with the goals of the pursuit of knowledge there is really no inherent contradiction between Islam and any of the steps in the path of seeking knowledge. Some steps may be mistaken. In that case what is needed is a demonstration of an alternative step. The critical survey in Section II has thus attempted to outline the key steps in the evolutionist anthropological approach to knowledge pertaining to the human being, and indicated possible avenues of exploring alternative steps from the Islamic perspective.

The issues that have been raised are but a few of the problems that await the endeavors and solutions of Muslim sociologists and anthropologists. It is their duty to engage in this study and make their contribution to cleaning out the trash that has built up around the anthropological and evolutionary sciences owing to the lack of understanding and appreciation of the Islamic vision of man and his history. It is similarly the duty of those who are able among the Muslim *umma* to support the endeavors of the Muslims who are attempting to do that work. I pray that the meagre attempts now being taken on will be successful and that Allahu *s.w.t.* will provide more and more for the continuation, increase and success of such work.

B. EVOLUTIONISM, DETERMINATION AND ISLAM

The continuation of such work and its appreciation in the Muslim world seem to be impeded by some suspicions regarding the deterministic and thereby un-Islamic orientation commonly understood to be implied in the tenets of modern science. This question deserves some clarification.

There is initially the problem of the seemingly deterministic principles of evolutionary process known to take place in the realms of geological and biological space and the discomfort that humans seem to feel in considering the possibility that the same evolutionary principles or laws may be extended into the study of the realms of human behavior and thought. This concern, voiced at the Seminar on the Islamization of Knowledge, seems to me to be an outcome of a misreading of the role that deterministic assumptions play in modern scientific studies.

If I may venture a rather simple explanation: Scientific procedures presuppose the existence of laws in nature according to which phenomena come about, prevail, reproduce, cease to be, and so forth. When a science has succeeded in decoding a sequence of principles or laws by which a class of phenomena are governed, it becomes possible to say that, given the consistency of certain conditions, action a will have the consequence b. Such statements are deterministic in the sense that the assertion is finite in regard to the specification of the conditions of occurrences, causes, and consequences. They are not deterministic in the infinite sense by which every single occurrence of the class of causes and consequences is subsumed in the statement of the principles or laws. In pursuing a specific line of inquiry a scientist presumes only the ability to predict the range of probability by which specific consequence events will follow a specific chain of cause events. There is a big difference between such statements on the measurement of probability and the kinds of materialistic and even spiritualistic determinism that is abhorrent to the Islamic principle of the power of Allah *s.w.t.* The Islamic view does not deny the existence of laws of nature. Nor does it presume that such laws are hidden from human intelligence. In fact it encourages humans to observe, study, understand, and reflect on the minute and major aspects of the order of the universe.

As Dr. Hisham al-Talib has reminded us, however, Allah who makes the laws of the universe and governs by them may also alter them by His will. Thus if we touch fire it will burn us. But Allah commanded fire to be cool and peaceful to Ibrahim *'alai salam*. Similarly with the natural processes of reproduction: We know that we are all born from a pair of parents. But we also know that Allah *s.w.t.* created Adam and Hawwa *'alaihima salam* by the power of His command and that they were not the offspring of any parents like all of us are; and, as another known exception, created 'Isa *'alai salam* from a mother only without a male parent. Such miraculous and ex-

ceptional events are presumably superimposed upon the normal flow of events. The assumption of natural laws for purposes of scientific analysis neither confirms nor denies such events.

The extension of the assumption of natural laws, and therefore of the possibility of the prediction of a range of probability from the inorganic sphere (as in physics, chemistry, geology and so forth) and organic sphere (as in biology) into what some have termed the superorganic sphere (as in anthropology, sociology and so forth – see Kroeber, 1917) is even much less dependent on deterministic assumptions. The units and variables in geology and biology are well known to be much more amenable to objective description and measurement than are the units and variables of anthropology and sociology. Human values and other cultural variables elude the kind of exact measurement that variables involved in the study of the exact sciences are amenable to. The subjective involvement of the scientist and other complexities in the study of human conditions, preferences, and so forth cloud the discussion of their measurement and description and the analysis of their variation. To react to the difficulties in their objective and scientific study by denying the usefulness of scientific methodologies and asserting simplifications believed to be based on religious prescriptions would darken our perspectives and judgement even further.

To illustrate: A central anthropological issue, namely that of the analysis of the physical, social, cultural and linguistic variation within the human species, has also been an issue in the study and discussion of the Islamic approach to humanity and the treatment of the facts of the worldly hierarchy of races, tribes, nations, sexes, classes, languages and so forth. In recent Islamic discussions of the issue it has been fashionable to quote Qur'an: XLIX: 13 and to sum the meaning of it as "all humans are one and the same." Such a summation of the meaning of the *ayah*, however, is incomplete when viewed in the light of contemporary evidence and social scientific literature on the subject. All humans may be "one and the same" in God's eyes. But they are definitely not so in human eyes. God is critical of man's lack of vision. God wants thinking men and women and others who "reflect" to be critical also. To be critical one has to know the why and wherefores of human perceptions of social, physical, cultural and linguistic differentiations. Hence the need to study and investigate the multicultural nature of the human species. Evolutionist anthropology and related disciplines have dominated the academic study of these issues in regard to the philosophical as well as practical levels. Islamizing the study of such issues from the place where they are now located cannot end in simply making argumentative propositions.

Rather they have to become topics for substantive studies which include the examination of studies that have been produced out of an evolutionist anthropological framework. Thereby Muslim sociologists and an-

thropologists may be able to delve into the physical, historical and sociological factors necessary for the understanding of the rights and wrongs of the stratification patterns in societies. Such understanding will be utilized in educating Muslim peoples in regard to the meaning, significance, and behavioral implications of the words of the Qur'an.

That is to say: judgements pertaining to what humans *ought to do* are not and cannot be determined by laws and principles discovered by science. What humans ought to do is dictated by the Qur'an. But our understanding of the implications of what the Qur'an says has to be strengthened by the scientific understanding of the individual and collective nature of human beings.

To say that the modern theories and studies of these subjects are not worthy of critical consideration because some of them originate in biological, economic, or social deterministic assumptions and to be content with repeating the words of the Qur'an can only be seen as a ruse to prevent an adequate understanding; as an excuse for the inexcusable lack of Islamic scholarly attention to the scientific study of these issues. In the same way it is inexcusable to simply copy and uncritically adopt the principles, procedures and theories behind the modern scientific studies. The natural science models derived from evolutionary methodologies themselves have to be examined to evaluate their usefulness to the Islamic understanding of the issues and problems.

In this regard it is useful to note that even within the secular framework of evolutionary anthropological studies, without the benefit of the critique arising from Islamic value propositions, questions pertaining to the problem of determinism have arisen and have been dealt with. The continuous effort to reconcile biological evolutionism with theories of language, culture, and society is conspicuous throughout the modern history of anthropological research. The history of such efforts at reconciliation may be viewed as belonging to a) open ended, interactionist, and b) deterministic schools of thought. The latter theories seek to demonstrate the determination of all relevant aspects of human culture and behavior from one set of criteria such as the genetic or technological. The interactionist approach recognizes the mutually dependent interaction of several sets of variables such as the social, cultural, biological, technological, environmental and so forth. The interactionists would pursue the study of the different sets of variables separately so that a holistic syntheses may eventually come about.

A controversial question in the debate between the proponents of the biological determination of human behavior and those who have opposed it has been in regard to the biological inheritance of behavioral characteristics. For educationists, for instance, the question of whether human intelligence and other intellectual abilities are inherited or acquired after birth

is a question of deep practical significance. In the 20th century the scientific tendency has been to shy away from theories espousing the inherited nature of the human intelligence quotient. To take a deterministic view of intelligence or any other human characteristic by a factor other than the divine is clearly un-Islamic. Islam rejects all forms of determinism whether it is biological or psychological or other. To say, "because my father or mother was a believer, I am a believer," or "because my parents were wealthy, I have to be wealthy," or "because your father was a carpenter you have to be a carpenter" is un-Islamic and mistaken.

Within the framework of the ultimate determination of everything by the will of Allah *s.w.t.*, however, there is room to investigate and study the natural causes of phenomena and thereby attempt to alter and control behaviors in ways that are beneficial to humankind. In that sense there seems to be no harm in the attempts to specify those areas of human behavior which are genetically controlled, i.e., inherited.

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REFERENCES

From the *Qur'an*, Muhammad M. Pickthall translation:

Ixxxix:6-8:

Dost thou not consider how thy Lord dealt with (the tribe of) 'Aad,
With many columned Iram

The like of which was not created in the lands;

xviii:9:

Or deemest thou that the People of the Cave and the Inscription are a
wonder among our portents?

(and many other *ayat* in that *sura*).

xlix:13:

O mankind! Lo! We have created you male and female, and have made
you nations and tribes that you may know one another. Lo! the noblest
of you, in the sight of Allah, is the best in conduct. Lo! Allah is Knower,
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