

Qur'an and Human Evolution

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Evolution is generally considered to be totally incompatible with the Islamic understanding of reality. This, however, happens to be a superficial judgement. Upon deeper reflection, the idea of evolution, and of gradual development and progress from one stage to the next, comes out as central to the Islamic world-view.

Although the idea of evolution sprouts from the Holy Qur'an itself,¹ many of the present-day Muslim scholars find this notion hard to swallow, particularly with reference to biological evolution. The reason for their abhorrence is probably the fact that the very conception of evolution brings up in their minds the appalling image of an ape squatting in man's family tree, something which they consider as diametrically opposed to the Qur'anic concept of human dignity. However, we shall try to show in the present article that it is quite possible to believe in the universal phenomenon of evolution, including the evolution of man from lower animals, without having to surrender the faith in the creative activity of Almighty Allah (SWT) and without subscribing to the degrading philosophy of Darwinism. This is possible because of the following reasons: In the first place, *evolution* is not synonymous with *Darwinism*; secondly, although evolution is a universal fact — which can be established through the study of comparative morphology, paleontology, embryology, anthropology, and genetics — the theory which is commonly propounded to explain its mechanism, i.e., Natural Selection, is by no means a secure and scientifically proven fact; and, finally, because the Islamic concept of human dignity is based on the presence in man of a non-physical soul and has nothing to do with his physical body.

The immediate response of the orthodox Muslim scholars to the idea of human evolution,

when it first arrived from the West in the Muslim world during the late nineteenth century, was one of outright and total rejection. The conflict between the schools of Deoband and Aligarh in British India imitated a somewhat similar friction in the Western world between the Scientific/Rationalist and the Religious/Traditionalist schools of thought. However, it is our contention that no inherent dichotomy exists between the rational and the religious, particularly the Qur'anic, world-views, other than an artificial and temporary discrepancy which arises out of either the lacunae in the available scientific knowledge or a misinterpretation and misunderstanding of the knowledge revealed by Almighty Allah (SWT).

Reason and Revelation

The colossal amount of academic work which was done by our learned ancestors in the field of Qur'anic exegesis is highly valuable, but these *tafaseer* — on account of a paucity of scientific knowledge in that era — often contain errors in the explanation of the Qur'anic allusions to natural and physical phenomena. The human errors in exegesis should never be mistaken for "errors" in the Divine text. Instead, our interpretations of the Qur'anic references to natural processes — for example, the *in utero* development of the fetus and the appearance of first man on earth — need to be carefully re-considered and revised in the light of modern scientific knowledge.

Religion and science are, in fact, close allies in the search for truth and not adversaries or antagonists. Both strive to reach the ultimate realities of existence. However, while science uses a cold and dry inductive method and can, by definition, arrive only at partial truths regarding the observable universe, religion uses an intuitive and direct approach to knowledge and arrives at the whole truth, which includes the invisible and transcendent realities. Furthermore, since the material and the spiritual, or the physical and the metaphysical, are two aspects of the same reality, at least some degree of overlap between scientific and religious knowledge is inevitable.

Thus, the facts uncovered by science can help us understand more clearly the truths revealed by religion, and, in the same way, various religious insights can help supply the missing pieces in the puzzles of scientific knowledge, thereby paving the way to a more holistic, coherent, and integrated view of reality. In the present article we shall apply this approach to the problem of human evolution.

Without showing any disrespect or irreverence to them, it may be pointed out that our religious scholars have, during the last couple of centuries or so, restricted themselves within a rather narrow circle of activity, which is essentially concerned with defending the dogmatic and ritualistic framework of Islam. While this in itself is a valuable service, what is really needed is revival and reconstruction of different aspects of the Islamic ideology in contemporary idiom. A proper reconstruction of Islamic theology, for example, would require a thorough study of the developments in the scientific and philosophical thought, especially during the last 500 years, along with a firm grasp over — or at least a comparable understanding of — the traditional Islamic sources, most importantly the Holy Qur'an itself. In order to take a stand against those modern philosophies which are seeking to destroy the foundations of Islamic faith, we need first to clearly discriminate between what is and what is not in accordance with the spirit of the Qur'an, and then to refute the part that is against the Qur'anic spirit and to accept and incorporate the part that is harmonious with the Qur'anic spirit into a contemporary interpretation of Islamic theology. It is important to recognize the fact that rejecting an idea as false which is actually compatible with the Qur'anic spirit is as serious a mistake as accepting an idea which is not consistent with the Qur'anic world-view.² With reference to cosmic and human evolution, as we shall see, the right position is to accept as true the general notion of progress and development in the universe as well as the idea of the evolution of human beings from lower life-forms, but to reject and refute the theory that all this happened as a result of blind and

purposeless "force" of Natural Selection.

The Darwinian Revolution

The idea of gradual and orderly change — or evolution — can be traced to the beginning of Greek philosophy, when Heraclitus said that everything moves and everything changes. Aristotle not only taught the idea of evolution, but also provided a theory of its causes. The Roman poet Lucretius gave the theory of gradual development of animal life from the simplest first beginnings to more complex forms. However, in modern times, it was the French naturalist J. B. Lamarck (1744-1829) who formulated a complete theory of species' transformation. According to him, in any living creature, organs improve in effectiveness if used and deteriorate if not used, and this improvement or deterioration will be passed on to its offspring. Explaining his views, Lamarck said that all life has an innate drive for perfection which leads to evolution of organism. In order to deal with changed environmental conditions, the animal brings about a change in its habits, involving the greater use of some organs (resulting in their growth), and reduced use of some other organs (causing their degeneration). Such modifications or acquired characters are inherited by the offspring, leading to the process of transformation. This theory, though simple and convincing, was based upon a flimsy foundation, as the notion of the inheritance of acquired characters could not be proved.³

During the middle of nineteenth century, we find the idea of organic evolution quite common in Europe, though a solid mechanism of its causation was still lacking. Men like William Wells, Edmond Blyth, Patrick Matthew, and Alfred Wallace worked on the idea of evolution after Lamarck. It is interesting to note that many naturalists during the seventeenth and eighteenth centuries were clergymen, and that they tended to see the study of nature as a sure way to a greater appreciation of the Divine Creative activities. The enmity between religion and science had not yet entered the field of biology. The prevalent idea was that the atheist has to be willfully blind to ignore the clear signs of

God's existence everywhere in the living world. It was generally believed by the naturalists that the existence of God can be inferred from the evidence of the exquisite design in nature, including the fact that organisms are so perfectly adapted to their environment. Even when some of the biologists of skeptical tendencies could not agree with all of the doctrines of the established Church, they would still remain, more or less, within the boundaries of theism.⁴ All this changed, of course, with the advent of Darwin.

Charles Darwin was born in Shrewsbury, England, in the year 1809, and came from a prosperous and educated family. In 1825, he was sent to Edinburgh to study medicine, the theoretical side of which he found dull, the practical part — especially surgery — he found horrifying. After he abandoned this endeavor in 1827, Darwin's father sent him to Cambridge to prepare for the ministry, and he received his degree in 1831. He was, however more fascinated by geology and natural history than by theology. Professor Henslow of Cambridge secured an invitation for Darwin to join, as a naturalist, the ship H.M.S. *Beagle* on a voyage to survey the coast of South America. The five-year voyage of the *Beagle* turned out to be the most important event of his life, and, some argue, of the entire history of biology.⁵

Darwin based his theory of the mechanism of evolution on the ideas propounded by Thomas Malthus in 1798. Malthus has argued that the unchecked rate of increase of any population far exceeded that of food production. Under these circumstances, population will grow until it reaches the limits of the food supply, and thereafter poverty, starvation, and death will be inevitable. Darwin is also known to have studied Auguste Comte and Adam Smith, and it has been argued that he simply applied the latter's economic theory to the world of living organisms.⁶ The mechanism of evolution proposed by Charles Darwin in his major works — "*On the Origin of Species by Means of Natural Selection*" (1859) and "*The Descent of Man, and Selection in Relation to Sex*" (1871) — can be briefly

described thus:

Every species of animal is enormously prolific, tending to increase in geometric ratio; as a result, there is neither room nor food enough for all. Hence there follows a *struggle for existence* in which only those individuals survive who are best adapted to their environment. This happens because there are slight variations in structure or function between different individuals of the same species. Those having favorable variations will be selected and preserved. They will live, thrive, and propagate, transmitting their favorable variations to their offspring. Those with less favorable variations would be unable to reproduce themselves in sufficient numbers and will, consequently, perish. The phrase *Survival of the Fittest* actually came from philosopher Herbert Spencer (1820-1903), who had speculated on evolution well before Darwin's theories became known, and had pounced eagerly on Darwin's thesis.⁷ In addition to Spencer, Thomas Huxley and Ernst Haeckle also played significant roles in preparing the ground for Darwin's second book, in which the author proposed that man is a descendent of ape-like creatures.

There were serious errors and major gaps in the Darwinian hypothesis of Natural Selection, as a result of which most early criticisms were based on scientific arguments. Some of the gaps in Darwin's theory were filled by others in the period following his death in 1882. Gregor Mendel (1822-1884) had discovered the laws relating to inheritance as early as 1865, but his work remained unknown until Hugo de Vries, in 1900, studied his papers and described the phenomenon of "mutation", or sudden changes in the chromosomes that comprise the agents of inheritance, the "genes." He proposed that evolution occurs, not as a result of Darwin's fluctuating variations, but due to sudden changes in the germ cells leading to the development of a new species which is distinct from the beginning. The discovery of the structure and dynamics of DNA in 1953 by Francis Crick and James Watson led to further elucidation of the theory of Natural Selection. Mutation is now defined as a random

change in one or more of the bases in DNA; such a change is inherited only if it occurs in the cells that give rise to gametes.

Although debates about the details of Darwin's view continue, the broad outline given by him is still very much in vogue. The mainstream view about evolution is sometimes called *Neo-Darwinism* (a synthesis between genetic theory and Natural Selection). It is said that defects and errors routinely occur in the "copying" process of DNA in the nuclei of the reproductive cells, and that some of these defects or errors produce minor variations in different members of the same species. Then Natural Selection comes into action and favors some of these variations while rejecting others, leading to the survival of the organisms that are more adapted to their environment as a result of these chance variations, and the extinction of those organisms whose variations are counter-productive in relation to their environment. Since these minor variations occur due to changes in the DNA itself, they are transmitted to the offspring, and, over a period of time, a number of changes accumulate, which lead to the emergence of a totally different species. A related theory is that of *Neo-Lamarckism*, according to which suddenly and exceptionally acquired characteristics are not inherited, but the action of some external stimulus, continuing through many generations, ultimately affects the genes, and the acquired character is then inherited.

The Genesis of a Dispute

The views of Darwin and his followers, when they were first made public during the 1860's and 70's, sparked off a controversy which has continued till our own time. Unfortunately, Darwinism was used for ideological purposes, and what should have been an academic and technical debate soon turned into a bitter and furious controversy between the scientific community and the Church, so much so that any disagreement with Darwin's views was increasingly seen as symptomatic of an irrational and dogmatic mentality. Some of the orthodox clergy — like Charles Kingsley and James McCosh — did support

Darwinism, and some of the theologians did try to reconcile Darwin's views with the teachings of the Scriptures, but, in general, the reaction from the Church was vigorously hostile. Thomas Huxley (1825-1895) in England and Ernst Haeckel (1834-1919) in Germany passionately defended and promoted the Darwinian theory of Natural Selection against the religious establishment. Huxley, often called as "Darwin's Bulldog", coined the term "Agnosticism" to describe the view that the problem of existence is insoluble, whereas Haeckel asserted his doctrine of "Monism", according to which the entire organic and inorganic nature, including life, is derived from the chemical properties of carbon. On the other side of the controversy were Richard Owen (a scientist), Reverend Adam Sedgwick, and Bishop Samuel Wilberforce, who tried to defend the idea of Special Creation.⁸

As mentioned above, the controversy of Evolution vs. Special Creation in the West is alive even today. Pope Pius XII in 1951 allowed the Catholics to accept evolution — provided they believe in the direct creation of human soul — and therefore the opposition from the Catholics has since then decreased considerably. On the other hand, the fundamentalist Christians (Protestants) in the United States of America, who have been defending Special Creation since the beginning of the present century, are still trying hard to include the doctrine of "Scientific Creationism" in the school curricula, to be taught at par with Darwinian evolution, and their associations — like the "Creation Research Society" and "Institute for Creation Research" — are still very active. The single most important person behind the revival of Creationism in recent times is Henry M. Morris, who claims that the idea of evolution is a "delusion of Satan."⁹ However, it may be pointed out that the real resentment of Christian fundamentalism is not as much against the idea of evolution as it is against the domination of a secular civilization and polity.¹⁰ It is undeniable that the modern Western mindset is thoroughly preoccupied with materialistic concerns — the physical and carnal aspects of life have come to replace the spiritual and moral

dimensions — and that one of the major reasons behind this mindset is the acceptance of the atheistic interpretation of human evolution by the majority, almost as if it were an axiomatic truth.

God of the Gaps

At the time the controversy began, the belief of the Church was that God has created the earth and all the species in a single act of Creation just as we see them today. With a little persuasion, the clergy could easily have accepted the view that, in fact, Almighty God has caused all living organisms to evolve to their present condition from primitive states, and that the Divine act of Creation actually manifests itself as a gradual process consisting of numerous stages or phases, rather than as a single and abrupt act. Unfortunately, instead of showing man as the culmination of Divine Creation, the position adopted by the scientific community was that the theory of Natural Selection has, once and for all, eliminated the need for a deity — as if the scientific explanation of a natural phenomenon can take the place of God. This type of thinking is reflected in the naïve question of a child: "Who made us, God or evolution?" The fallacy involved here is that evolution came to be viewed as some kind of a "power" that can do things, a "force" that can somehow replace the Creator. It was erroneously assumed that now, since the law of change has been discovered, there is no need for any philosophy or religion to explain the existence of universe, man, and mind in terms of a transcendental being.

The fundamental error involved in this type of thinking is sometimes described as the hypothesis of "God of the gaps." The development of science in Europe occurred in an intellectual environment where the concept of a Creator or a Designer was often employed only for the purpose of filling the lacunae in human knowledge. An "act of God" was something you could not explain on the basis of available scientific data. Thus, the presence of innumerable species of plants and animals and their marvelous adaptation to their environments was explained as being the "work of God."

However, as more and more laws of nature were uncovered, the need to invoke a deity went on decreasing by the same proportion. Science, which is essentially the study of the creative activities of Almighty God, was thus turned into a substitute for God. This fallacy is still found in modern scientific writings. For instance, Carl Sagan, the famous astronomer and popular science writer, claims in his television series and book *Cosmos* that the idea of evolution through Natural Selection has successfully replaced the old hypothesis of an all-powerful Creator:

The idea that every organism was meticulously constructed by a Great Designer provided a significance and order to nature and an importance to human beings that we crave still. A Designer is a natural, appealing and altogether human explanation of the biological world. But, as Darwin and Wallace showed, there is another way, equally appealing, equally human, and far more compelling: Natural Selection ...¹¹

Obviously, the idea of evolution describes a fundamental fact of the universe and Natural Selection is a valuable method of study, but they cannot explain the world on their own. Evolution is the descriptive interpretation of the origin and history of life on earth; it does not in itself necessitate any particular mechanistic or atheistic attitude. However, in the highly charged and polarized intellectual milieu of the second half of nineteenth century, those who were already inclined towards atheism thought that they have found, in the form of Darwin's theory, the *coup de grâce* for religion. Thus, Friedrich Engels wrote to his comrade Karl Marx in 1859: "Incidentally Darwin, whom I am just reading, is absolutely splendid. One bastion of theology was still unbreached. Now it has fallen." Marx replied a month later: "I have read Darwin's book during the last four weeks. Although set out in the clumsy English style, this is the book that will provide the natural history basis for our work."¹²

Darwinism was enthusiastically adopted and developed on purely materialistic lines by the intellectuals of atheistic disposition, in the hope that it will demolish the foundations of all

religious belief. The origin and evolution of man was now being viewed as resulting from pure chance, making obsolete all spiritual and moral concerns. This provided the perfect excuse to the philosophy of moral relativism and absolute liberalism. Man came to be viewed as nothing more than a sophisticated brute, consciousness was explained away in terms of electro-chemical and mechanical processes in the brain, and the uniquely human phenomenon of religious experience was discarded as a mental aberration or a result of wishful thinking.

The Friction between Reason and Revelation

It is not surprising, therefore, that religious scholars in the Muslim world recognized the demons of atheism, immorality, and permissiveness that were lurking beneath the apparently innocent facade of a scientific theory. Their rejection and condemnation of Darwinism was equally expected. This rejection inevitably resulted in a serious division and discord between the teachings of the School and those of the Mosque. Young Muslims were especially vulnerable to the perplexity caused by the conflict between the more rational and more credible curriculum offered by the largely secular schools on the one hand, and the traditional religious instructions received at home on the other. This confusion has existed in one form or another till the present day.

We can now appreciate that a lot of fallacious thinking and unfortunate mix-up of theory and fact were involved in this dilemma; but then, those were the days of Colonialism. The science that had arrived along with the European rulers was not to be challenged. In fact, the dazzled and awe-struck "natives" were in no position to question anything which was even remotely connected with the rulers. Our ancestors belonging to the Sir Sayyid school of thought, who adopted an attitude of total acquiescence and intellectual subjugation to rationalism and the new "enlightenment", were not guilty of any willful wrongdoing; they were simply stupefied in the face of an overwhelming opponent. On the other extreme, our religious scholars or ulama adopted a negative attitude and refused to accept

anything that was even remotely linked with the rulers. This resulted in a serious dichotomy between the "worldly" and the "religious" segments of our society, something which has continued to intensify despite numerous attempts to find a middle path.

Today, we are in a much better position, relatively speaking, because we feel intellectually free and confident to distinguish right from wrong. Moreover, the constancy and absolute dependability of the scientific viewpoint has also disappeared, giving way to the mercurial manner in which theories come and go. Today, we find ourselves on a much stronger footing to argue that evolution and Darwinism are two different things. That evolution is a natural and ubiquitous law of nature is a fact based upon our day-to-day observations as well as scientific inquiry and philosophical considerations. At the same time, the theory of Natural Selection is just that — a theory, and not a very good one at that. Natural Selection is certainly applicable in many cases, but it is far from being proved as the sole or even a major cause of biological evolution as it took place on earth.

Evolution: Descriptive and Instructional

The ideas relating to the process of evolution can be divided into two separate categories: *Descriptive* and *Instructional*. What is meant by descriptive evolution is that life-forms have undergone innumerable changes during the course of the last four billion years, that higher and more complex organisms have evolved from simpler ones, and that all species can be traced back to the simplest forms in which life initially appeared. Instructional evolution, on the other hand, consists of the various theories that are propounded to explain the mechanism of evolution, Darwin's Natural Selection being one such attempt. In other words, descriptive evolution deals with the question of *what*, whereas instructional evolution tries to answer the *how* part.¹³ It is of fundamental importance that we keep this crucial distinction in our minds, as any mix-up between the two can preclude our efforts to reach the truth and to find a meeting point between science and religion.

What is most significant here is that there are hardly any doubts concerning descriptive evolution — that is to say, biological evolution did take place on earth. On the other hand, a tremendous debate is still going on regarding the instructional evolution — that is to say, the mechanism by which evolution took place has not yet been settled. Our contention is that the fact of evolution can not only be reconciled with the teachings of the Qur'an, but that it fits perfectly in the overall scheme of God's creation as described in the Holy Book. On the contrary, the theory of Natural Selection is basically an atheistic interpretation of evolution which is not only at odds with the spirit of religion but which is considered quite flimsy even in the scientific circles. Several alternate theories have so far been presented to explain the process of evolution, one of the most coherent of which is described below:

Pierre Grassé, a prominent French biologist, declares that the explanatory doctrines of evolution do not stand up to an objective, in-depth criticism. He asserts that evolution as we know it is quite obviously dependent on a process of successive additions of genetic information over the course of time. Fortuitous mutations do not adequately account for the emergence of major variations, as they are unable to create new forms with modifications that affect several organs in a coherent manner. His theory of "creative evolution" has its roots in prototype forms; all the major organizational types were laid down at a very early stage, followed by a period of accentuation of these phenomena, which were rounded off by a phase during which events slowed down and the creation of new types finally ground to a halt. According to Grassé, evolution and morphological variations can only occur as a result of the creation of new genes along with changes in the existing genes of an organism. New information which materializes and integrates itself permanently into the genetic code in the form of sequences of nucleotides can only arise from preliminary intracellular reactions, resulting from an orderly development that takes place over successive generations.¹⁴ This theory is, in our

opinion, much more compatible with a theistic understanding of evolution than Neo-Darwinism.

Following is an overview of some of the major shortcomings of Neo-Darwinism:

1) There are a number of "panchronic species" including cockroach, coelocanth, lamp shell, and horse-shoe crab, which remained practically unchanged for millions of years. Natural Selection cannot explain this lack of evolution.

2) When natural disasters strike, it is not always the fittest who survives; often it is the most fortunate. Sudden changes in the environment bring death and mass extinction which does not necessarily make a distinction between the less adapted and the more adapted species.

3) When animals fight, it is not always the best equipped who wins the battle, similarly the female does not always chose the strongest male; in these cases the role of individual circumstances and pure luck should not be overlooked.

4) In certain animals, some characteristics continued to develop even after they had become deleterious, leading to the extinction of the species. Though, according to Darwin, unfavorable characters are not supposed to evolve.

5) The remarkable adaptation of plants and animals to their environment is generally thought to be enough proof for Natural Selection. But if survival was the only aim of evolution, then life-forms would have stopped diversifying as soon as a safe point was reached. It is obvious that life has taken a much riskier and adventurous path, showing that survival by adaptation was not the sole purpose of evolution. The increasing level of complexity of living organisms indicate that evolution is not a haphazard process, but seems to have a drive towards perfection.

6) Natural Selection cannot take into account any long-range considerations, because, in the struggle for existence, every new variation must be immediately useful to the organism's survival or it will be discarded. This means that Natural Selection cannot explain the emergence of complex

organs, each of which is made of a very large number of parts that must have developed independently through thousands of generations, as they would have no utility during all that time.¹⁵

One of the serious problems with Neo-Darwinism is its inability to explain the absence in the fossil record of a large number of transitional forms between known species of animals. According to Darwin, since Natural Selection acts only by the slow accumulation of slight variations, it cannot produce sudden modifications. However, there are so many "missing links" in the paleontological record that the very idea of a *continuously* slow and gradual evolution (or Phyletic gradualism) is losing its hold in the community of biologists. Many of them are forced to accept that there are unexplained "jumps" or "punctuations" in the history of evolution, when new species have emerged rather suddenly. The theory of "Punctuated Equilibrium" describes that eons of invariance were punctuated by periods of 5,000 to 50,000 years in isolated ecological niches where unusually rapid evolution took place.¹⁶ This, of course, is tantamount to the admission that Natural Selection cannot be the sole cause of evolution.

Another major shortcoming of Neo-Darwinism is its failure to account for such uniquely human characteristics as self-consciousness, reflective thinking, abstract thought, ethical discrimination, the ability to prevail over simple instinct, aesthetic appreciation, faith in a Higher Power, and creative endeavors in art, mathematics, science, and philosophy. From a biological point of view, not a single one of these has any survival value whatsoever. In this respect, the idea of *Emergent Evolution*, as put forward by Lloyd Morgan, is a noteworthy attempt to overcome this very limitation of a mechanistic evolutionism. According to Morgan, evolution is a series of stages in which there supervenes at each new level a new form of "relatedness", and it is from this "relatedness" that something entirely new comes forth which then determines the course of future events. In the development of the universe and life, new forms with new

qualities "emerge" which cannot be explained in terms of the previous level, e.g., matter, life, mind, and values. Just like the emergence of molecules from atoms, the mind emerges from life and values emerge from mind. Lloyd Morgan is of the opinion that the whole evolutionary movement must be seen as the actualization of an original Activity or urge, which lifts the world from one level to the next, and which can be equated with Mind or God.¹⁷

Even Alfred Russel Wallace, a firm Darwinian himself, could not agree with Darwin's thesis that human intellectual and moral faculties had evolved from lower animals. According to him, the presence of these faculties — like art, mathematics, and metaphysics — clearly point to the existence in man of something which he has not derived from his animal progenitors. It was only by identifying this non-animal faculty with a spiritual essence that Wallace could account for the presence of higher ideas in man, his delight in beauty, and his sense of justice.¹⁸

The Dual Nature of Man

We now turn to the Islamic viewpoint concerning the doctrine of evolution. Our traditional and orthodox ulama, as mentioned before, have generally shown a tendency to reject and discard the very idea that man is a product of gradual change from lower life forms. Between the stiff and dogmatic opposition from the ulama and the overwhelming scientific evidence which proves the contrary, a young student of biology is confronted with a serious dilemma. If he is of a rational and analytic disposition, he is likely to become convinced that what is being presented to him in the name of religion is nothing but a set of rigidly held superstitions. On the other hand, if our student is of a religious bent, the mental conflict may result in his adopting — consciously or unconsciously — the strategy of *disengagement*. This is a form of compartmentalization by which a person accepts a proposition as a fact but confines it to a certain remote compartment of his mind, so that the disturbing fact does not interfere with his convictions. It is obvious that although the

strategy of *disengagement* may seem to work, it results in a personality that lacks integration and cohesion. What we need, therefore, is a true and proper reconciliation between reason and revelation.

The first thing that needs to be noted is that the idea of evolution is not an alien adversary vis-à-vis Islam and Muslims, but that it actually belongs to the forgotten legacy of our own ancestors. It was Allama Iqbal (1877-1938) who first re-claimed this lost heritage by pointing out that it was actually Muslim scientists and scholars who had presented, for the first time in modern era, the idea of organic evolution, and they did so centuries before Lamarck or Darwin. Iqbal recalled that it was Al-Jahiz (776-869 CE), the author of *Kitab al-Haiwanat* who first put forward the idea of evolution in the animal kingdom, and Ibn Maskawaih (942-1032 CE), the author of *Fauz al-Asghar*, who wrote about the evolution of man from inanimate matter to plants and then to the animals, and mentioned the close relationship between man and ape.¹⁹ In addition, we find the idea of evolution expressed in various forms by Al-Mas'udi, Al-Bairuni, Jalaluddin Rumi, and Ibn Khaldun.

More importantly, we need to realize that the Holy Qur'an gives two contrasting pictures of man. On the one hand, the Qur'an says that man is the highest and the most honored of God's creations²⁰ and, on the other hand, it says that man is ungracious, weak, greedy, and full of haste.²¹ These two conflicting pictures of man can neither be reconciled nor their true meaning grasped except by realizing that human beings have a dual nature: There is a non-material mind or spirit or ego which exists side by side with man's corporeal body.²² According to a tradition which is narrated by Hadrat Abu Huraira (RAA) and reported by Imam Bukhari (RA) and Imam Muslim (RA), Prophet Muhammad (SAW) has said: "He created Adam in His own image", and it is well-known that the Bible says the same thing: "God created human beings in his own image; in the image of God he created them; male and female he created them." (Genesis 1:27) This, of course,

refers to man's spirit and not his body. Indeed, the teaching of most religions is that man's essence is to be found in his spirit, and that this spiritual essence must dominate his lower instinctual impulses. The *hadith* quoted above also implies that man's true superiority over the rest of creation, including angels, is not because of his physical body, which he shares with other animals, but is actually due to his spiritual soul which truly distinguishes him and sets him apart from all other living creatures.

The significance of understanding this soul-body dualism is as follows: The main reason why the idea of biological evolution does not seem to be harmonious with the religious outlook is not the fact of evolution per se, but the accompanying view that man is nothing more than what it looks like, i.e., a sophisticated animal. The only solution, therefore, is to understand that the real essence of a human being is his spiritual soul, and that he is not merely a physical form. The process of evolution concerns only the physical body of man; it has nothing to do with his *Rooh*. This understanding is absolutely essential if we are to reconcile the fact of evolution with the teachings of religion.

The idea of human evolution can be effectively divorced from its capacity for producing atheism, immorality, and permissiveness once we incorporate in it the Qur'anic concept of the dual nature of man. The reason for this is quite easy to appreciate: If a person believes that he is a mere animal, then he is likely to behave like one; on the other hand, if he believes that his real self is of Divine origin, his entire outlook as well as his conduct in life will consequently be dominated by spiritual and ethical concerns rather than mere material and carnal ones. In other words, we need to establish that man is composed of both a material body of terrestrial origin as well as a spiritual soul of celestial origin, and to emphasize that this *Divine Spark* is much more important than man's animal or physical self. As such, there is nothing un-Islamic in the belief that man's physical body is formed by means of organic evolution, provided we keep in our minds the

distinction of body and soul, as described in the following paragraphs.

The Physical and the Spiritual

The mind-body problem has been a major concern for philosophers throughout the history of speculative thought. It has implications for such religiously significant issues as freedom of will and the possibility of life after death. The non-physical identity of the human self is denied by the materialist in order to invalidate the concept of the immortality of soul and its survival beyond death. Reducing the human self exclusively to the physical body also inevitably leads to an explanation of human actions in term of stimuli and response instead of free choice. The fundamental position of Descartes (1596-1650) in this respect — that mind and body are ontologically different and distinct substances — is, of course, much more harmonious with the spirit of the Qur'an than the materialist and reductionist theories of Thomas Hobbes, Antoy Flew, Gilbert Ryle, and, more recently, of Daniel Dennett.²³ The materialists argue that what we call "mind" is a function of the anatomy and physiology of the brain and nothing more; they ignore the possibility that the brain and its electro-chemical processes may simply be a channel for the interaction of mind and body.

The human self, ego, or mind²⁴ — along with its highly remarkable features of consciousness and reflective thought — cannot be reduced to the behavior of ions and molecules in the neural tissue, as mental events or states are basically and essentially different from physical ones. Our ability to conceive of abstract and universal ideas is a uniquely human privilege, and it is not possible to explain them in terms of the properties common to material objects, like size, shape, color, weight, etc., necessitating a separate and distinct existence of mind. Furthermore, there is an immense amount of evidence concerning Psychic phenomena, including telepathy, precognition, retrocognition, psychokinesis, and extra-sensory perception, which proves that there are human faculties which go beyond the realm of physical existence, and even beyond the limitations of time and space. It

is obvious that none of these faculties can be explained in terms of mechanical processes.²⁵

It was Charles Darwin's second book, *Descent of Man*, in which he rejected the age-old belief in the special status of humanity among all other living beings. He popularized the notion that man differed from other animals only in degree and not in kind. It has been argued in the Darwinian tradition that since the human brain is only a more sophisticated and more complex form of the brain of lower animals, it follows that there is no essential difference between man on the one hand and a dog or a crocodile on the other. The premise is true, but the conclusion does not follow. A fundamental mistake has been committed in this assertion: The ability of all animals (including man) to perceive various types of sensory stimuli and to infer results after processing this sense data is equated with the much superior and uniquely human capacity of intellect, consciousness, and intuition, and the fact that the two types of faculties are qualitatively distinct from each other is conveniently ignored.²⁶

Human beings enjoy a special place in the entire realm of creation. Unlike all animals, humans are not only aware but they are also *self-aware*; they are not just conscious but they are also *self-conscious*. No other life-form has this capacity for introspection, strongly suggesting that man has been endowed with something unique that transcends his physical body and its purely mechanical functions. Only man can turn his attention inwards and analyze his own deeper self. This in itself proves that he possesses a supra-sensory faculty that provides a permanent sense of identity to his transient states of sensations and experiences. I not only think, I am also conscious of myself thinking. This, of course, constitutes the *efficient* and *appreciative* aspects of my inner self, respectively. According to Iqbal, it is my appreciative self, or my ego, that is my real, deeper self, or *khudi*. My "I am-ness" does not refer to my physical body. The real "I" is something within. It is intangible, invisible, and non-physical, but still very real.²⁷

Duality of God's Creation

The physical self of man is, indeed, only a highly evolved animal, and therefore its dominant inclination is towards inferior and carnal pursuits. However, strictly speaking, the animal side of man has an essentially neutral and amoral nature just like all other animals, and his purely instinctive desires for survival, food, sexual gratification, and domination over others are by no means evil or sinister as such. However, it is important to understand that since the basic instincts want nothing but their own immediate fulfillment, and since they are blind in so far as they are unable to distinguish between the lawful and the prohibited, there is a potential danger of their getting out of control. This unrestrained animal self is what Sigmund Freud describes as the *id* — the unorganized source of primitive instinctual impulses.

The spiritual soul, on the other hand, comes from God and is "of God", and hence inclines toward higher spiritual and moral ideals. It is a Divine element residing inside a brute. Almighty Allah (SWT) refers to the soul that was infused into Adam as "of My Spirit", suggesting that this soul has a close affinity with the person of Almighty Allah (SWT). It is this spiritual soul or *Rooh* which forms the inner core of individuality and the unique personal essence of a human being. Since the soul is of Divine origin, it has an intrinsic love for and attraction towards Almighty Allah (SWT) and longs for a communion with Him.²⁸ The mysterious despair of loneliness and separation that is felt by the more sensitive among us, and which is so often emphasized by Existentialist writers, is actually a manifestation of the craving of the human spirit for intimacy with the Almighty, poignantly expressed by Rumi in the initial couplets of his *Mathnawi*:

Listen to the reed how it tells a tale,
complaining of separations
Saying, "Ever since I was parted from the reed-
bed, my lament hath caused man and woman to
moan.
I want a bosom torn by severance, that I may
unfold (to such a one) the pain of my love-
desire.

Every one who is left far from his source wishes back the time when he was united with it.²⁹

The Qur'an alludes to the fact that it is this very spiritual soul infused into man that made a human being out of an animal, made him capable of receiving Divine Revelation, and elevated him to the position of vicegerent of God, superior even to the angels. According to the Qur'an:

When your Lord said to the angels: "I am verily going to create a human being from fermented clay dried tingling hard; And when I have fashioned him and breathed into him of My Spirit, fall down, prostrating yourself before him." (Al-Hijr 15:28,29)

The Qur'an describes that, in the beginning, Almighty Allah (SWT) created the spiritual souls (or *Arwah*) of all human beings that were destined to be born up till the Doomsday, and it seems that this creation took place even before the creation of the material universe — before the beginning of time itself. Almighty Allah (SWT) then endowed these human spirits with their sense of identity and the faculty of speech, and assembled them all together so that a covenant could be taken from them, as mentioned in the Holy Qur'an:

And recall when your Lord brought forth descendants from the loins of the sons of Adam, and made them witnesses against their own selves, asking them: 'Am I not your Lord?' They said: 'Yes, we do testify.' (Al-A'raaf 7:172)

According to an authentic tradition, which is narrated by Hadrat Abdullah Ibn Mas'ud (RAA) and reported by Imam Bukhari (RA) as well as Imam Muslim (RA), Prophet Muhammad (SAW) is reported to have said that Almighty Allah (SWT) sends an angel to every expecting mother after 120 days of gestation, and that this angel then infuses a spiritual soul into the unborn child. Earlier interpretation of this *hadith* had equated the soul with life; this was an obvious error, since the fetus and even the zygote before it is already alive, and there is no point in giving life to an already living organism. The real

meaning of the *hadith* can be appreciated only when we consider the spiritual soul (or *Rooh*) as distinct from life. The infusion of spiritual soul in the human fetus at a particular point in its development (at a gestational age of 4 months) is also suggested by the Holy Qur'an (Al-Mo'minoon 23:12-14).

As far as the physical aspect of a human being is concerned, it is indeed a product of gradual biological evolution. This fact appears to clash with the religious outlook only when we interpret the Divine act of Creation as a singular event occurring in remote past. This interpretation is, of course, not a correct one. The Qur'an teaches us that Almighty Allah (SWT) is always actively engaged in Creation. The principle of gradual change and development from the lower to the higher stages is an integral part of the material world. Consider the processes in the natural or physical world — the intrauterine development of a fetus, the growth of a tree, the change of seasons, the birth and death of stars — and you shall find that, although some processes are faster than others, all of them occur by means of gradual change. It is neither logically impossible nor religiously sinful to conceive that Almighty Allah (SWT) brought the human physical form into existence through a process of gradual development. On the other hand, we need to keep in mind that the spiritual soul in man belongs to an altogether different realm, a realm where the notions of time and space have no relevance at all. There is absolutely no growth or development for the spiritual soul, nor is there any time element involved in its capacities and functions.

The dual nature of man represents the duality of God's Creation. Thus, Shah Waliyullah Delhvi has discussed, in his magnum opus *Hujatullah al-Baligha*, the two types of Divine creative activity. There is *Al-Aalam Al-Khalq*, the world of Allah's "ordinary" creatures that all of us come across in our day to day observation and in the study of nature. Everything that happens in this realm takes time. The universe took approximately 15 billion years to develop from the Big Bang and the primitive

gaseous state to its present condition. A fertilized ovum takes forty weeks to grow into a fully developed human baby. Similarly, life on earth began in the primordial ocean and took at least 4 billion years of usually slow, but at times rapid, evolutionary development to reach its climax — the creation of the perfect animal or the Homo sapiens. But then there is *Al-Aalam Al-Amr*, or the domain of Divine Creative Energy, that is a direct manifestation of His Word or "logos", i.e., His command of "Be!" There is absolutely no time factor involved in this realm, and things happen instantaneously: He says: "Be!" and it becomes.³⁰

The initial act of the creation of matter out of nothing represents a direct command or *Amr* of Almighty God, and, like this act of creation *ex nihilo*, the Qur'an suggests to the discerning reader that the angels, human spirits, and the phenomenon of Divine Revelation (or *Wahee*) also belong to the *Al-Aalam Al-Amr*.³¹ The human physical form took a long process of evolution to reach its present state of maturity because it is a part of *Al-Aalam Al-Khalq*; the spiritual soul, however, was created instantly in a single act of Divine command as it belongs to the world of God's Creative Energy or *Al-Aalam Al-Amr*.

The Origin and Evolution of Life

There are numerous suggestions in the Holy Qur'an which point to the fact that man's physical form is, in fact, a product of the earth, and, unlike his spiritual soul, his body is not a foreigner or an alien in this planet. For instance, consider the following *ayaat*:

And Allah has caused you to grow as a growth from the earth. (Nuh 71:17)

He brought you forth from the earth and settled you therein. (Hud 11:61)

Thereof [i.e., from the earth] We created you, and thereunto We return you, and thence We bring you forth a second time. (Ta-Ha 20:55)

He fashioned you in stages (Nuh 71:14)

It may be noted that the Qur'an makes frequent references to *soil*, *clay*, and *water* concerning the creation of man and the origin of

life, and that these references are perfectly harmonious with the modern view that life originated at the shore of the primordial ocean. Almighty Allah (SWT) says in the Qur'an:

If you have any doubt, O men, about being raised to life again, (remember) that We created you from dust...
(Al-Hajj 22:5)

It is He who created you from clay ...
(Al-An'aam 6:2)

So ask them if they are more difficult to create, or the rest We have created? Indeed, We created (man) from *fermented clay*. (Al-Saffat 37:11)

He created man of *fermented clay dried tinkling hard like earthen ware*. (Al-Rahman 55:14)

We fashioned man from *fermented clay dried tingling hard*. (Al-Hijr 15:26)

We created man from the *extract of clay*.
(Al-Mu'minoon 23:12)

It is He who created man from *water* ...
(Al-Furqan 25:54)

Do not these unbelievers see that the heavens and the earth were of one piece, then We split them and made every living thing from *water*? Will they not believe even then? (Al-Anbia 21:30)

God created every animal from *water* ...
(Al-Noor 24:45)

The results of experiments by Miller & Urey in 1953 have suggested the following scenario: When our planet began to cool and water vapors started to condense and began to erode the rocks, the elements dissolved in it started to combine and gave rise to various inorganic molecules. These simple molecules, in response to the energy provided by the sun and its ultraviolet radiations, interacted chemically to produce the amino acids which are the building blocks of all protein macromolecules, including enzymes. It has been postulated that, at the shore of the primordial ocean, the soil acted as a catalyst by causing small molecules — especially amino acids and nucleic acids — to come closer, and traces of metals like Zinc and Nickel accelerated their polymerization, until a complex organic molecule with the capacity for self-replication came into being, eventually leading to the formation of a

unicellular organism. Thereafter the onward march of evolution began, and, after passing through innumerable stages and phases, it finally culminated with the advent of man.

The fossils of the first bipedal anthropoids (ape-like animals walking on two feet) — called *Australopithecines* — are approximately one to 3.6 million years old. Subsequent fossil record shows the appearance of increasingly human-like forms, including *Homo habilis*, *Homo erectus* (Java Man and Peking Man belong to this group), *Homo sapiens neanderthalensis*, and finally *Homo sapiens sapiens* (which include the Cro-Magnon Man). The fossils of this last mentioned form are as old as 35,000 years. It must be noted that although there is no general agreement regarding the precise relationship between modern man and the various man-like forms mentioned above, a number of anthropological and biochemical studies have pointed to the emergence of all present day humans from a small group of individuals, perhaps somewhere in the Middle East. It is believed that their descendants soon migrated to various continents and adapted to their differing environments and climatic conditions, leading to the variations in the skeletal, muscular, and other details of different races.³²

In the light of the Qur'anic narrations, we are inclined to believe that when the process of biological evolution reached its goal and the final form of man appeared on the earth, Almighty Allah (SWT) selected a single pair — a male and a female — and endowed them with their spiritual souls. It is not entirely inconceivable that all other members of this species died out and became extinct, and that all of us are, therefore, descendants of this primordial human pair, Adam and Eve, as alluded to in the Qur'an (Al-Hujurat 49:13). The Qur'an, however, gives us no clue as to when this happened, though the chronology based on the Biblical genealogical data places the first human pair in a time-frame of approximately 8,000 B.C.³³

In this context, the significance of the infusion in man of his spiritual soul must not be overlooked; in the absence of these Divine foci

of self-consciousness and spirituality, the Homo sapiens would have remained nothing more than intelligent brutes. Consider the Qur'anic *ayaat* given below, and note how the reference to man suddenly shifts from third person to the second following the infusion of a spiritual soul:

(Allah is the one God) Who made all things He created excellent; and He began the creation of man from clay. Then He made *his* offspring from the extract of base fluid; then He fashioned *him* and breathed into *him* of His Spirit; and gave *you* hearing and sight and the faculty of inferring. And yet how little are the thanks *you* offer! (Al-Sajda 32:7-9)

Coming of Age in *Al-Jannah*

The Qur'an has narrated in detail the story of the primordial human pair, how they lived in perfect bliss in "the Garden" before being seduced by Satan the accursed. The conventional rendering of the story of Adam and Eve assumes that all this happened as actual historical events, and it is certainly conceivable that this literal interpretation is a correct one and that the story does describe actual events just as they occurred. However, it is also possible to explain the relevant Qur'anic verses in terms of a metaphor or a parable, because, as Allama Iqbal has pointed out, it is common style of the Holy Book that it frequently makes use of metaphors and parables in order to make complex and abstract realities easily comprehensible.

It goes to the credit of Iqbal that he succeeded in re-interpreting the well-known Qur'anic story of the origin of mankind in contemporary language, deciphering its underlying meaning and elucidating its significance for the modern man, and, in so doing, he remained well within the Islamic tradition. The following interpretation is given by Iqbal in the 3rd lecture of his *Reconstruction of Religious Thought in Islam* ("The Conception of God and the Meaning of Prayer").

Iqbal points out that there is no reason to believe that the word *Jannah* (garden), as used in the Qur'an with reference to Adam and his wife, means the supersensual paradise that will be the

eternal abode of the righteous. Man is not a stranger on this earth, and the word *Jannah* in this Qur'anic context actually means a primitive state in which man is practically unrelated to his environment and consequently does not feel the sting of human wants, the birth of which alone marks the beginning of human culture. According to Iqbal, the purpose of the Qur'anic legend of the "Fall" is to indicate man's rise from a primitive state of instinctive appetite to the conscious possession of a free self, capable of doubt and disobedience. And, as we have stressed in the foregoing paragraphs, this self-consciousness as a unique and free individual can only indicate one thing — the presence of a spiritual soul.

According to Iqbal, the legend of the "Fall" is a common motif among different human cultures. The Qur'an has adopted this theme and presented it in a novel manner for teaching us a number of fundamental truths about the nature of man and his position in the universe. Thus, we see that the Qur'an has split up the legend into two distinct episodes — the one relating to "the tree" (described in Al-Baqarah 2:35,36) and the other relating to the "tree of eternity" and the "kingdom that faileth not" (narrated in Al-A'raaf 7:19-22 and Ta Ha 20:117-121)). Adam and his wife, led astray by Satan, tasted the fruit of both the trees. Iqbal points out that the "Fall" does not mean any moral depravity; rather, it is man's transition from simple consciousness to the first flash of self-consciousness, a kind of waking from the dream of nature with a throb of personal causality in one's own being. It is important to appreciate the fact that man's first act of disobedience was also his first act of free choice; and that is why, according to the Qur'anic narration, Adam's first transgression was forgiven.

Regarding the symbolism of the tree, Iqbal argues that it is the nature of the self to maintain itself as a self, and, for this purpose, it seeks knowledge, self-multiplication and power, or, in the words of the Qur'an, "the kingdom that never faileth." The first episode in the Qur'anic legend relates to man's desire for knowledge, the second to his desire for self-

multiplication and power. The forbidden tree is a symbol of occult knowledge. Adam was forbidden to taste the fruit of this tree because his finitude as a self, his sense-equipment, and his intellectual faculties were, on the whole, attuned to a different type of knowledge, i.e., the type of knowledge which necessitates the toil of patient observation and admits only of slow accumulation (the inductive or the scientific method). Satan, however, persuaded him to eat the forbidden fruit of occult knowledge and Adam yielded, not because he was eternally wicked, but because being "hasty" by nature he sought a short cut to knowledge. The only way to correct this tendency was to place him in an environment which, however painful, was better suited to the unfolding of his intellectual faculties.

The second episode of the Qur'anic legend is meant to suggest the irresistible desire of life for lasting dominion, an infinite career as a concrete individual. As a temporal being, fearing the termination of its career by death, the only course open to it is to achieve a kind of collective immortality by self-multiplication. Iqbal interprets the eating of the forbidden fruit of the tree of eternity as life's resort to sex-differentiation by which it multiplies itself with a view to circumvent total extinction. The original sexual act is suggested by the mention, in the Qur'an, of the birth of the sense of shame that caused Adam and his wife to cover the nakedness of their bodies.³⁴

As mentioned above, in addition to this allegorical interpretation, it is equally possible to describe the Qur'anic narration of the "Fall" as actual, historical events. The primordial human pair was temporarily kept in a garden — right here on earth³⁵ — in order to impress upon them the fact that Satan is man's biggest enemy. Almighty Allah (SWT) decided to test His would-be vicegerents on earth, and for this purpose He selected a tree and told Adam and his wife not to approach it. However, they were both led astray by Satan's allurements and did exactly what they were forbidden to do. As soon as they realized their sin, Adam and his wife — unlike Satan — did not persist in disobedience

but wanted to return to a state of obedience, though they were unable to find words to offer their repentance. According to the Qur'an "Thereupon Adam learned from his Lord some words and repented and his Lord accepted his repentance ..." (Al-Baqarah 2:37) Unlike the Christian doctrine of "Original Sin", the Qur'an makes it very clear that Adam and his wife's repentance was accepted by Almighty God, and afterwards they were asked to leave the garden — a place where they were not disturbed by hunger, nakedness, thirst, or exposure to the sun³⁶ — and to live on their own. This was not a punishment from Almighty Allah (SWT) but a sign of His confidence in the abilities of His vicegerent (or *Khalifah*) on earth.

Evolution and Purpose

Once the non-physical nature and the Divine origin of human soul is recognized, and its properties of freedom and immortality accepted, the idea of evolution and its atheistic interpretations cease to have any erosive influence on religious belief. Indeed, our understanding of the process of evolution, if properly understood, can become an immense source of faith and gnosis.

In this respect, it may be pointed out that the most fundamental point of contrast between the theistic and the atheistic versions of evolution is provided by the notion of "purpose." The Darwinian view is that the process of evolution is essentially blind, with no pre-established goal or aim; this implies that the advent of human beings is strictly a chance occurrence which resulted from the random interaction of aimless forces of nature. A theistic understanding of evolution, on the other hand, is based on the belief in the profound purposefulness of the universe. The majestic beauty in the overall order of nature and in the advent of a rational being capable of pondering his own origin and destiny is, without a doubt, the sign of an intelligent Mind at work. The history of the evolution of life on earth shows that it was far from being random or aimless; from the very beginning, biological evolution had proceeded in such a way as to lead, ultimately,

to the emergence of human beings.

In contrast to the agnostic or the outright atheistic biologist, who is somehow satisfied in his belief that there was no direction whatsoever behind the entire phenomenon of evolution, we find numerous philosophers and even scientists who believe that evolution had a definite purpose. They subscribe to what is known as the doctrine of *Teleological Evolution*, the notion that evolution has been guided by a transcendental force aiming to achieve certain pre-determined goals. One of the most influential scholars among them was Pierre Teilhard de Chardin (1881-1955), a Jesuit priest and paleontologist, who envisioned an evolution planned by God.

According to Teilhard, the struggle for existence, Natural Selection and the sudden appearance of mutations are realities, but they cannot explain the higher development of life, especially the orthogenetic or directional character of evolution. In his view, there is a force in the center of matter which systematically makes life more complex. Man is not a static center of the world but, instead, he is the axis and the arrow of evolution. Instead of being a sort of accident created by blind forces of nature, man is the peak towards which all biological efforts on this earth have been aiming. Thus, man is not only the last phase of creation, but he is also the inner reason why all previous developments had to happen. According to Teilhard, if the evolutionary process is carefully scrutinized in all its amplitude, the causal operation of mind-like energies will be discovered within it. These can be understood only by recognizing them as the manifestation of a creative mind acting within the process, steering it towards goals that are set in advance. In Teilhard's view, all physical and spiritual matter was there with the first Divine act of creation, enclosed in a more or less embryonic state, and the entire history — as well as the future — of evolution represents nothing but the unfolding of that single creative act. According to Teilhard, there is a Divinely implanted source of energy in humanity that propels it forward and upward, physically, mentally, and spiritually.

The starting point of evolution from primordial matter is "Alpha", and the goal is "Omega Point." Omega is, in effect, God, but Alpha also contains God. Thus, the universe began in God and will return to Him.³⁷

Another very influential philosopher was Henry Bergson (1859-1941), who uses the idea of a life-force (*élan vital*) to attack the materialistic and mechanistic connotations of Darwinism. For him, the main problem with Natural Selection as the sole cause of evolution is that this theory is actually an extension of the Newtonian mechanical world-view whereby biological changes were understood to be governed by the rigid laws of cause and effect. According to Bergson, the universe has within it a vital impulse driving it to greater and greater complexity, creativity, and adaptability, as spirit struggles with the resistance of matter. Bergson describes his ideas in theistic terms, and asserts that what he calls *élan vital* — the mysterious dynamic spirit at the core of existence — is the vehicle of Divine creativity and activity, and is knowable not by rational analysis but only by means of direct intuition.³⁸

Compare this view with the one presented by Dr. Muhammad Rafiuddin (1904-1969), who has made it very clear that his philosophical views are only a blossoming of what is already present in a potential form in the poetry and writings of Iqbal. According to him, the idea of *Creative Evolution* as presented by Bergson is much closer to the spirit of the Qur'an than any other explanation of evolution. Dr. Rafiuddin believes that the desire or will of the Creator is the actual cause of the evolution of universe; it is flowing in the cosmos as a current of consciousness, changing and transforming the universe so as to bring it to the state of its highest perfection, as desired by the Creator. Biological evolution was only one phase of the grand overall process of growth and development. The transformation of one species into another — irrespective of whether it occurred gradually or abruptly — was caused not by Natural Selection but was, in fact, a manifestation of the will of Almighty Allah (SWT). The whole process of the

evolution of cosmos can be understood as having several stages, as follows:

The first stage was that of *physical* evolution, which lasted from the creation of matter out of nothing up to the time when simple chemical compounds grew into complex organic molecules, leading to the emergence of life on earth. This stage of purely physical change was directed by the Divine current of consciousness that continuously runs through all matter, causing it to behave in specific ways (what we describe as the "laws of nature"). The second stage was that of *biological* evolution, when the same current of consciousness took the form of an indwelling life-force which directed the process towards the creation of the perfect animal, the Homo sapiens. The third stage was that of human *intellectual* evolution, which started when self-consciousness developed in man, and the Divine current took the form of an urge for Beauty and Perfection, expressing itself in human thought and behavior as the love of an ideal. Just as the biological phase of evolution was characterized by sudden appearances of new species at variable intervals which accelerated the process of biological evolution, in the same way the intellectual phase of evolution was characterized by the phenomenon of prophethood, the purpose of which was to accelerate the intellectual evolution of mankind. Prophethood ended after reaching its ultimate perfection in the person of Prophet Muhammad (SAW), who also represents the zenith of the human search for the ultimate ideal. At the moment we are going through the fourth stage of cosmic evolution, that of the *social* evolution, whereby humanity as a whole is moving towards the realization of the values and ideals which have already been achieved at an individual level in the life and teachings of Prophet Muhammad (SAW), and at a collective level in the politico-socio-economic system that was established by the Prophet. This phase of evolution is going to culminate in the global domination of the only true Ideal, otherwise known as Islam, at all levels of collectivity.³⁹

The fact that the ongoing social evolution of humanity will culminate in the global

domination of Islam is not mere wishful thinking, but this has been emphatically foretold by Prophet Muhammad (SAW) in various traditions. Furthermore, since Prophet Muhammad (SAW) was appointed messenger of Almighty Allah (SWT) to the entire humanity, and since the purpose of his advent was to make the *Deen al-Haq* dominant over all man-made systems of life, it follows that goal of Prophet Muhammad's advent will be fulfilled only with the establishment of the ascendancy of Islam over all mankind, all over the world.

Evolution Beyond Death

Teilhard de Chardin has said that the world is interesting only when one looks forward. As far as the human individual self is concerned, it seems that there is only death to look forward to. But what is the meaning of "death"? If we identify the real human self with the spiritual soul that is Divine in origin, there is no question of its annihilation along with the death of the physical body. Our bodies decay and degenerate, they die and turn to dust, but our souls move on to another world in order to fulfill their destiny. The human evolution will continue after death, but it will occur on a plane which will be very different from all the previous ones.

Iqbal has taught us that we are living in an unfinished universe. Everything around us is growing, developing, progressing from one stage to the next, maturing towards its ultimate perfection. Therefore, human evolution too needs to be understood in its proper, wider context. Indeed, the very nature of the *self* as described by Iqbal necessitates an extremely dynamic and vigorous career. The crux of the matter is this: God needs me as much as I need Him. My ultimate Ideal of Beauty and Perfection is the essence or person of Almighty God, and the Ideal of God is the full realization of the potentialities with which He has endowed the finite egos, or the spiritual souls of human beings. We, finite egos, are struggling to reach our Beloved, and in this struggle we are also helping God to realize His Ideal. The entire physical and biological evolution of the cosmos was to prepare for the

coming of man; its intellectual and social evolution is meant to make him more and more conscious of his own ultimate Ideal — God the Almighty. All this is happening on such a grand scale that, obviously, death cannot stop this process of growth in the least. The physical body of terrestrial origin will go back to the earth, but the evolution of the soul will continue. According to Iqbal:

The theory of evolution ... has brought despair and anxiety, instead of hope and enthusiasm for life, to the modern world. The reason is to be found in the unwarranted modern assumption that man's present structure, mental as well as physiological, is the last word in biological evolution, and that death, regarded as a biological event, has no constructive meaning.⁴⁰

On the contrary, death is nothing more than our transfer from this world to the next, perhaps into a different dimension with a totally new set of rules. The first station on our way to the Hereafter is called the *Barzakh*, a state akin to what we sometimes experience in this life when we are midway between sleep and full wakefulness. This is a state in which the spirit will catch a glimpse of the really Real, and would know as to what will be its immediate future. Then, after the resurrection of the entire humanity, all of us shall enter the state called the Hereafter or *Al-Aakhirah*, where the egos or spirits would emerge for their final accountability before their Lord.⁴¹

The belief in the rewards of the Heaven and the punishments of Hell is an integral part of the Islamic world-view, but the point to be considered here is whether or not the Paradise and the Hell are eternal. According to the orthodox Islamic beliefs, both the Paradise and the Hell are eternal, but there are a number of Qur'anic allusions as well as *ahadith* which have been interpreted by some eminent Muslim scholars —including Hafiz Ibn Qayyam (RA) and Maulana Sayyid Suleman Nadvi (RA) — as suggesting that although the Paradise is forever, the Hell may not be so.⁴²

Reflecting on the Qur'anic verses from a

philosophical perspective, one is inclined to the following conclusion: As far as the narrow and limited perspective of us finite egos is concerned, both the Paradise and the Hell shall last forever, but their eternity will only be a subjective experience; on the other hand, from the infinite perspective of Almighty Allah (SWT), neither the Paradise nor the Hell is eternal. The evolution of the human souls will continue after death, in the sense that the punishments of the Hell will go on diminishing and the pleasures of the Heaven will go on increasing until the egos will reach their perfection as desired by their Creator. Obviously, the spirits who had failed to realize their real Ideal in the worldly life, and who would, therefore, be suffering the torments of the Hell as a means of purification and purgation, would take a much longer time to reach this stage of perfection. Thus writes Iqbal:

Time cannot be wholly irrelevant to the development of personality. Character tends to become permanent; its reshaping must require time. Hell, therefore, as conceived by the Qur'an, is not a pit of everlasting torture inflicted by a revengeful God; it is a corrective experience which may make a hardened ego once more sensitive to the living breeze of Divine Grace.⁴³

Ultimately, there will be something more beautiful and more pleasurable than all the delights and joys of the Paradise — the communion with Almighty Allah (SWT). Man will approach God with the irreplaceable uniqueness of his individuality, and his ultimate union with the Infinite Ego will be more like that of a pearl, not a drop, merging with the ocean. The perfected finite egos will live, forever, as ideas in the Mind of God, which will be their ultimate Paradise. The same idea is expressed by Dr. Rafiuddin in the following words:

At the death of the Universe, since the action of every self will come to a final end there will be a reckoning of the net progress of humanity on account of which the total and ultimate share of every self in the evolution of the world as a whole will be reflected in an immediate deterioration or improvement of its

position in Hell or Heaven. This final reckoning will be followed again by a course of evolution in which the Hell of humanity will rise gradually into a Paradise and the Paradise will achieve a higher and higher perfection till the Creator will realize His ideal completely and turn his attention to the creation of the next Universe. ... When we have reached our highest evolution we shall live as realized ideas in the mind of the Creator forever. The achievement will be a source of permanent joy for us as well as for the Creator; He will be pleased with us and we shall be pleased with Him and this will be an ever-lasting Paradise.⁴⁴

The re-union of human spirits with the Ultimate Divine Reality is a common theme in Islamic mystical writings and poetry. However, Allama Iqbal has pointed out that the finite ego, in spite of its immensely strong urge to re-unite with its Creator, can never truly become one with the Divine. This means that irrespective of how close they get, the finite egos will always remain distinct from the Infinite Ego, and, in this sense, the process of evolution will never reach its climax but will continue forever. Iqbal has repeatedly emphasized in his poetry that total satisfaction and fulfillment is the death of love, and eternal life is meaningful only if it is conceived as an everlasting journey towards the Beloved. It is better to continue burning forever in the fire of love than to be completely consumed in it.

Here I cannot but yield to the temptation of quoting the following piece of exceptionally moving poetry from Jalaluddin Rumi, describing the creative and evolutionary function of death:

I died as a mineral and became a plant,
I died as a plant and rose to animal,
I died as animal and I was man.
Why should I fear? When was I less by dying?
Yet once more I shall die as man to soar
With angels blest; but even from angelhood
I must pass on; all except God doth perish.
When I have sacrificed my angel soul
I shall become what no mind ever conceived.
Oh, let me not exist. For non-existence
Proclaims in organ tones: "To Him we shall
return."⁴⁵

Endnotes

¹ For instance, the word *Rabb* stands for "Lord" and "Sovereign" as well as "Evolver", i.e., one who causes something to grow and develop from lower to higher stages till it reaches its ultimate perfection. Cf. Commentray on Surah Al-Fatiha in Azad, Maulana Abul Kalam., *Tarjuman-ul-Qur'an* (Delhi: 1931-1936). It must be noted that scientific and philosophical truths in the Qur'an — including the allusions to the idea of evolution — usually take the form of indirect and scattered references. This is primarily because the Qur'an had to fulfill two conflicting requirements: to convince and motivate a common man of the 7th century Arabia, as well as to provide intellectual and practical guidance to the entire humanity till the end of the world. And herein lies the true miracle of the Holy Book, because its verses are, even today, as relevant to an average person of ordinary acumen as they are to the most discerning and intelligent one.

² Muslim scholars have generally shown one of two extreme tendencies in their attempt to deal with modern science and philosophy: They either reject all Western and modern ideas *in toto*, or they try to find Qur'anic justifications for each and every view that comes along. What is really needed is much more complex and arduous than such oversimplified approaches. For a discussion of the guidelines for refuting un-Islamic ideologies, cf. Rafiuddin, Dr. Muhammad., *Qur'an aur Ilm-e-Jadeed* (Lahore: All Pakistan Islamic Education Congress, 1981, Fourth Printing) pp.130-134

³ For details of various theories of evolution cf. Bowler, Peter., *Evolution: The History of an Idea* (Berkeley and Los Angeles: University of California Press, 1989, Revised Edition) and Patrick, G.T.W., *Introduction to Philosophy* (London: George, Allen and Unwin Ltd., .1968) Chapter X.

⁴ Significant naturalists of this era who found the proof of God in the study of biology include John Ray (who wrote *The Wisdom of God Manifested in the Works of Creation* in 1691), William Derham (who wrote *Physico-Theology* in 1713), and William Paley (who wrote *Natural Theology* in 1802). Cf. Dupree, A.

Hunter., "Christianity and the Scientific Community in the Age of Darwin" in Lindberg, David. C., and Numbers, Ronald L., *God and Nature: Historical Essays on the Encounter Between Christianity and Science* (Berkeley and Los Angeles: University of California Press, 1986)

⁵ For a biography of Charles Darwin cf. Brent, Peter., *Charles Darwin: A Man of Enlarged Curiosity* (New York: Harper & Row, 1981)

⁶ Henderson Jr., Charles P., *God and Science: The Death and Rebirth of Theism* (Atlanta: John Knox Press, 1986) p. 55

⁷ McGreal, Ian, P.M., *Great Thinkers of the Western World*. (New York: Harper Collins Publishers, 1992) p. 367

⁸ Cf. Vanderpool, Harold Y., "Darwin and Darwinism", in Johnson, Roger., (Ed.) *Critical Issues in Modern Religion* (New Jersey, Prentice Hall, 1990) Second Edition

⁹. Morris, Henry M., *Evolution and the Modern Christian* (Grand Rapids: Baker Book House, 1967). This conflict first appeared in the United States in 1925 when a high-school biology teacher in Dayton, Tennessee, was charged and found guilty for breaking the state law which forbade the teaching of evolution. Many text-books made little or no mention of evolution till the early 60's, when science curricula were thoroughly revised throughout the United States, and the conflict was revived again with the publication of *The Genesis Flood*, a book jointly written by Henry Morris and John C. Whitcomb, Jr.

¹⁰ A prominent creationist asserts that it is the idea of evolution which has promoted apostasy, atheism, secular humanism, libertinism, and ethical relativism. Cf. Huse, Scott. M., *The Collapse of Evolution* (Grand Rapids: Baker Book House, 1983)

¹¹ Sagan, Carl., *Cosmos*. (New York: Random House Inc., 1980) p.29.

¹² Quoted in Kopp, Joseph V., *Teilhard de Chardin: A New Synthesis of Evolution*. (Glen Rock, New Jersey: Paulist Press, 1964)

¹³ I owe this explanation of the distinction between "descriptive" and "instructional" evolution to the

highly interesting article "Two Evolutions" by Huston Smith, included in his book *Beyond the Post-Modern Mind* (New York: Theosophical Publishing House, 1989, second edition) pp. 161-183. Another significant distinction that must be kept in mind is that of *evolution* and *evolutionism*: The former is a scientific idea which does not say anything about the existence or non-existence of God, whereas the latter is a naturalistic ideology that specifically excludes the possibility of any Divine intervention.

¹⁴ Pierre Grassé has described his theory of evolution by means of an orderly increase in genetic information in his book *L'Evolution du vivant* (The Evolution of Living Organisms) and *Précis de biologie générale* (Handbook of General Biology) For details, cf. Bucaille, Maurice., *What is the Origin of Man? The Answers of Science and the Holy Scriptures* (Paris: Seigners, 1982)

¹⁵ Bucaille, Maurice., op.cit & Smith, Huston., op.cit. It may be noted that a number of arguments, put forward by the Creationists in their attempt to refute evolution, actually apply to Natural Selection rather than to evolution itself.

¹⁶ For details of the theory of "Punctuated Equilibrium" cf. Gould, Stephen Jay., *The Panda's Thumb* (New York: W.W. Norton, 1980); Stanley, Steven., *The New Evolutionary Timetable* (New York: Basic Books, 1981); and Hitching, Francis., *The Neck of the Giraffe* (New Heaven: Ticknor and Fields, 1982).

¹⁷ Cf. Morgan, C. Lloyd., *Emergent Evolution.*, (New York: Henry Holt and Company)

¹⁸ Cf. Wallace, Alfred Russel "Darwinism as Applied to Man" in *Representative Essays in Modern Thought* (New York: American Book, 1913) Alfred Russel Wallace (1823-1913) was a contemporary of Darwin, and, working independently, he arrived at the same conclusion about the evolution of life as were reached by Darwin himself. The two scientists had presented a joint paper at the Linnean Society in 1858.

¹⁹ Iqbal, Dr. Muhammad., *Reconstruction of Religious Thought in Islam.*, (Annotated Edition) Iqbal Academy, Lahore, 1986, p.96.

²⁰ Cf. Al-Qur'an: Al-Teen 95:4, Al-Isra 17:70, etc.

²¹ Cf. Al-Qur'an: Al-Nisaa 4:28, Al-Isra 17:11 & 67, Al-Teen 95:5, Al-Ma'arij 70:19 etc.

²² Cf. Ahmad, Dr. Israr., *Zindagi, Maut, aur Insaan.*, Hikmat-e-Qur'an (April, May 1988) pp. 15-44; *Haqiqat-e-Insan* (audio cassette no. AU-07-05, Markazi Anjuman Khuddam-ul-Qur'an Lahore); and *Nazaria-e-Irtiqa' aur Qur'an-e-Hakeem* (audio cassette no. AU-07-04, Markazi Anjuman Khuddam-ul-Qur'an Lahore).

²³ For details of the reductionist view of mind cf. Flew, Antony., (Editor) *Body, Mind, and Death* (New York: Macmillan Publishin Co., 1964) pp. 1-28 (introduction); Ryle, Gilbert., *The Concept of Mind* (London: Hutchinson and Co. Ltd., 1949); and Dannett, Daniel., *Consciousness Explained* (Boston: Little Brown, 1991)

²⁴ Although words like 'mind', 'soul', 'spirit', 'self', and 'ego' have subtle differences in their respective connotations, we have treated them as synonyms for the sake of simplicity.

²⁵ Sir Cyril Burt writes in the *Journal of Parapsychology* (March, 1967): "Parapsychology appears fully to confirm the view upheld by Bergson, James, Eccles and others — that the brain is (in Sherrington's pregnant phrase) simply 'an organ of liaison between mind and the physical world.'" Quoted in Johnson, Miles Beardsley., *Four Questions* (California: Clarion Publications, 1985) p. 77

²⁶ The idea of mind or self as a non-physical and non-material entity is defended in Campbell, C.A., *On Selfhood and Godhood* (London: George, Allen and Unwin., 1959); Born, Rainer (Ed.) *Artificial Intelligence: The Case Against* (New York: St. Martin's Press, 1987); and Ahmad, Dr. Absar., *The Concept of Self and Self Identity in Contemporary Philosophy* (Lahore: Iqbal Academy, 1986)

²⁷ It may be pointed out that modern man's growing sense of alienation is actually a result of his materialistic mindset, which has eliminated any possibility for believing in unseen realities — including his own inner self. As a result, he is quite willing and even happy to see himself as an animal.

²⁸ Cf. Ahmad, Dr. Israr., *Haqeeqat-e-Rooh-e-Insani* (audio cassette no. AU-07-06, Markazi Anjuman Khuddam-

ul-Qur'an Lahore)

²⁹ Rumi, Jalaluddin., *The Mathnawi of Jalaluddin Rumi*. Translated by R. A. Nicholson (Lahore: Kazi Publications, n d) Vol 1. p 5

³⁰ Cf. Al-Qur'an: Al-Baqara 2:117, Aal-e-Imran 3:47, Ya-Seen 36:82, Al-Mo'min 40:68, Al-Qamar 54:50

³¹ Cf. Al-Qur'an: Al-Isra 17:85, Al-Nahl 16:2 & 102, Al-Mo'min 40:15, Al-Sajda 32:9, Saad 38:72, Al-Hijr 15:29, Al-Qadr 97:4

³² Williams, Warwick, Dyson, and Bannister., (editors) *Gray's Anatomy* (Edinburgh: Churchill Livingstone, 1989, 37th Edition) pp. 5 & 11

³³ In the Old Testament "the appearance of man upon the earth is set forth as the result of a direct creative act of God, which took place at least over 4,000 years B.C., and perhaps as early as seven or ten thousand years B.C." Cf. Unger, Merrill., *Unger's Bible Dictionary* (Chicago: Moody Press, 1966, third edition) p. 20

³⁴ Iqbal, Dr. Muhammad., op. cit. P.66-70.

³⁵ What was the location of "Al-Jannah" where Adam and his wife were kept? Some of the commentators of the Qur'an have suggested that it was in the heavens, others are of the view it was somewhere on the earth. Even Maulana Abul A'la Maududi, who rejected the idea of biological evolution, was inclined towards the latter opinion. Cf. *Risa'il-o-Masa'il* (Lahore: Islamic Publications, 1991, nineteenth printing) vol.4., pp.19, 20. The Bible, however, is very clear on this point, and places the "Garden of Eden" somewhere in the Tigris-Euphrates country, probably in the eastern part of the Fertile Crescent. Cf. The Book of Genesis 2:10-14

³⁶ Al-Qur'an: Ta Ha 20:118, 119

³⁷ Cf. Teilhard de Chardin, Pierre., *The Phenomenon of Man* (New York: Harper & Brothers Publishers, 1959). The distinction between *Progressive Creation* and *Theistic Evolution* may be noted here: The former is the belief that God intervened in an otherwise natural (i.e., automatic) process only on those occasions when He wanted to transform one species into another, whereas the latter is the belief that God's influence in the world of nature is pervasive, and that He had

acted throughout as the guiding force behind the evolution of life-forms.

³⁸ Cf. Bergson, Henri., *Creative Evolution* (New York: Henry Holt and Company, 1911)

³⁹ Cf. Rafiuddin, Dr. Muhammad., *Ideology of the Future* (Lahore: Sheikh Muammad Ashraf, 1946) and *The Manifesto of Islam* (Lahore: Sheikh Muhammad Ashraf, 1973, Second Edition)

⁴⁰ Iqbal, Dr. Muhammad., op. cit. P.97.

⁴¹ The possibility of bodily resurrection is a controversial subject in theology. Contrary to the Christian interpretation of life-after-death, which is a purely spiritual one, the Islamic understanding is that the *Qiyamah* (or Resurrection) will be characterized by a re-union of each spiritual soul with a physical body. Although the exact nature of the bodies that we shall be provided in the Hereafter is clearly beyond the realm of inquiry or imagination, they are likely to resemble our present physical forms, at least in appearance.

⁴² Cf. Nadvi, Maulana Sayyid Suleman., *Seeratun Nabi* (Lahore: Nashiran-e-Qur'an Ltd., 1395 A.H) Vol 4. pp. 760-792 It may be noted that the overwhelming majority of Muslim scholars have supported the view that both the Paradise and the Hell are eternal.

⁴³ Iqbal, Dr. Muhammad., op. cit. p.98

⁴⁴ Rafiuddin, Dr. Muhammad., *Ideology of the Future* (Lahore: Sheikh Muhammad Ashraf, 1946)

⁴⁵ Rumi, Jalaluddin., *The Mathnawi of Jalaluddin Rumi*. Translated by R.A. Nicholson. Quoted by Dr. Muhammad Rafiuddin in *The Manifesto of Islam*, p. 152