

EVOLUTION

'Originally you were clay. From being mineral you became vegetable. From vegetable you became animal, and from animal, man. During these periods man did not know where he was going, but he was being taken on a long journey nonetheless. And you have to go through a hundred different worlds yet. There are a thousand forms of mind.'

Rumi

Science and Biological Evolution

Evolution is defined by science as an orderly and progressive development of organic life governed by certain laws. From the perspective of science the biological evolution of plants, animals and humans is a series of irreversible transformations of the genetic composition of populations, based primarily upon altered interactions with and adaptations to their environment.

Evolution occurs on many levels and proceeds through vast periods of time. Over the last thousand million years the evolution of the earth's biosphere was marked by an increase in order and organization. Our scientific understanding of the evolution of life on earth is quite recent:

The history of life on earth is a recent addition to man's knowledge of himself and his world. Until the nineteenth century, life and man's place in it were studied with little or no attention to the significance of the past – that is, of traces. Since Darwin, the study of traces has assumed a dominating importance. New and improved techniques are giving man new and astonishing ways of studying traces – radioactive dating is perhaps the most unforeseeable from the standpoint of the last century . . . Few today dispute the general picture drawn by geologists and palaeontologists of the succession of events that have led to the existence of the Biosphere as we know it at the present time. Disagreements appear, however, as soon as we seek an interpretation or explanation of the picture. The phylogenetic sequence is written in the sea bed and in the rocks, but the phylogenetic mechanism is not so certainly established. Nevertheless, most biologists are satisfied that organic evolution by the mechanism of genetic variability and the operation of natural selection will account for nearly all the traces of past life on the earth. (1)

Human evolution presents a unique challenge to scientific investigation, since recorded human history represents less than 0.2% of the time since our first human ancestors appeared on earth. For all intents and purposes, our biological evolution – especially the growth of the brain – stopped some 30,000 - 40,000 years ago:

During that 99.8 percent of the time of the modern era, the human brain reached its current state of evolution – long before the cave paintings, long before our ancestors domesticated animals or planted crops, long before the pyramids. Those nomads were us, those cave painters were us. Their brain was our brain; our cortex, enormous, was as massive in our remote ancestors. Their visual sensibility, the delicacy of skilled movements in painting, was the same as ours. And their mind, too, was the same as ours. Our real history is “written,” in our blood, in our bones, and in our nerve circuits. And it was written before there were writers. The mind’s beginnings are found in the dazzling variety of adaptations (the adjustments an animal makes to flourish in its world) of countless living beings, striving to survive on earth. (2)

The modern scientific understanding of evolution was given its greatest impetus with the groundbreaking work of Charles Darwin. Darwin’s greatest contribution was his *findings* rather than his *theory* of evolution. “He was the first to scientifically and systematically assemble and organize the evidence that established the reality of evolution.” When he published *The Origin of Species* in 1859, after more than thirty years of research, it dramatically changed the scientific understanding of how life developed and adapted to external forces and circumstances:

How living beings evolved remained a mystery until Darwin made his revolutionary observations which, together with the modern understanding of genetics, underlie the modern theory of evolution and modern life sciences. *Origin* established two important principles: evolution was taking place on earth, and it was driven by natural selection. The proposition Darwin made is wonderfully uncomplicated, especially considering the complexity and profundity of the natural world . . . He understood that the mechanism for growth and change was not to be found within God’s directed design, nor in anyone’s design, but involved countless organisms adapting to the specific locale in which they lived over immense time. Key to this idea is the huge time scale over which adaptations occur. (3)

Since the publication of *The Origin of Species*, Darwin’s theory of evolution has been modified by the schools of neo-Darwinism, sociobiology and macroevolution. The most influential movement, neo-Darwinism, extends Darwin’s theory of evolution by including the mechanism of genetic transfer. It holds that species evolve by natural selection acting on genetic variation.

The scientific evidence for biological evolution is widely accepted in the scientific community and based on numerous independent lines of investigation:

Evolution itself is a scientifically established phenomenon, and a questioning of the evidence in its support would be difficult. Various lines of substantiation have been systematically amassed in the last century, beginning with the labors of Darwin himself who collected and organized a great deal of information and materials. Evidence for the evolution of life comes from the following fields: paleontology (bones and fossils), comparative anatomy, morphology, embryology, and comparative

biochemistry. Techniques for establishing the evidence are quite sophisticated, including carbon-14 dating procedures, chromosomal micro-analysis, and serological analysis. (4)

Although many aspects of human evolution based on the Darwinian and neo-Darwinian perspectives have been validated through a variety of scientific findings in many different fields of study, these are primarily related to physical evidence while disregarding the role of mind and consciousness in the evolutionary process:

Undeniable scientific evidence of the evolution of human culture and civilization provides strong logical and analogical support for the mental and physical evolution of the human species. It is known, for instance, that the brain's neural mass increases with ongoing problem-solving activity, long after achieving chronological maturation. This knowledge fits well with the generally accepted theory of our human ancestors' migration from arboreal habitation to savannah environments. Long-distance viewing of potential danger or sources of food and protection would require the more or less erect posture not demanded of them as tree-dwellers. In addition, and no less important, life on the grasslands would require new, more complex survival strategies (tool and weapon making, social reorganization, etc.) that would in turn stimulate brain growth . . . Though contemporary science continues to expand its understanding of human evolution, its deeper comprehension of the phenomenon has at the same time been delimited by its essentially materialistic outlook and method. Bones, fossils, artefacts, comparative anatomy, blood analysis, ethological observation, and genetic studies are sources of extremely valuable data, but the Darwinian exclusion of mind and consciousness leaves the body of evolutionary theory without a real head. But the inadequacies of neo-Darwinian theory have yet to be fully recognized. (5)

In their book *Toward a New Brain: Evolution and the Human Mind*, psychologist Stuart Litvak and co-author Wayne Senzee identify some of the flaws inherent in the Darwinian and neo-Darwinian theories of evolution:

- Inadequate, inconsistent or contradictory evidence
- Questionable assumptions and premises, logical fallacies
- Tautologies, circular arguments, proof by selected instances
- Statistical improbabilities of random events and mutations
- The challenge of explaining the phenomenon of co-evolution (e.g. plants and insects)
- Inability to explain the evolution of human consciousness.

The evolutionary theories of Darwin and the neo-Darwinians have also been criticized as overly materialistic, mechanistic and reductionist:

Many biological phenomena are, quite simply, not reducible to their component parts. There are multitudes of cases in the living world of what is now described as synergy; an example is water, a substance that transcends its mere components as two parts hydrogen and one part oxygen. Reductionism also discards one of the most fundamental qualities of life – consciousness (including experience, feeling, mind, etc.). Yet, it is generally agreed in more enlightened circles that, in higher forms of life at least, intellect, awareness, and consciousness have evolved at least parallel to body and form . . . The basic issue of evolution is not just the origin of species, but the “origin of organization” – understanding the organizational principles that underlie, and assist, the development of new species. The Darwinian assumptions of randomness, accident, and fortuity, and so forth – the grand interplay of blind forces – are being confronted as insufficient, if not meaningless. In their place is a return to such meta-concepts as design, order, purpose, direction, values and meaning. (6)

Darwin himself admitted that he was puzzled by the overdevelopment of the human brain “beyond anything physical survival demands.” Many of the Darwinian assumptions that evolution is blind, random or accidental are challenged by many traditional spiritual teachings which hold that human evolution is a process of the transformation of consciousness from darkness to illumination. From this perspective many of the tenets of Darwinian evolutionary theory are called into question:

In considering the broad implications of evolution, and human evolution in particular, a major difficulty concerns Darwinism and why it cannot possibly be sustained alongside spiritual conceptions of evolution and development. In essence, Sufism (as well as other bona fide systems of human development) holds to the view that humans are self-evolving beings, and that certain efforts under certain circumstances will result in evolutionary transformation . . . Darwinism does not square with Eastern, esoteric, psycho-spiritual interpretations of evolution simply because Darwinists believe that evolution occurs as the result of random, accidental processes and therefore the best products of evolution are fortuitous. Darwinists basically believe that evolution comes about through the chaotic activity of random genetic mutations resulting from radiation, cosmic rays, undirected chemical and micromechanical shocks, microscopic lesions, etc.) and the fortuitous “weeding out” process of natural selection (“survival of the fittest” doctrine). Statistically, Darwinism is untenable simply because the mathematical probabilities of the evolution of all life forms occurring by chance alone are nil . . . Even though the word is used over and over, Darwinism is not a true theory of “evolution.” It does not adequately delineate how evolution occurs or why. It is more a scheme about how organisms adapt, reproduce and survive. Therefore, Darwinism may be seen as a *misplaced theory*; it claims (and believes) to be explaining one thing (evolution), while in actuality it is describing something related but different (strategies for survival). (7)

In his book *A Guide for the Perplexed*, E.F. Schumacher (author of *Small is Beautiful*) argues that, although science has shown that natural selection is an agent of evolutionary change, "it is totally illegitimate to claim that the discovery of this mechanism – natural selection – proves that evolution 'was automatic with no room for divine guidance or design.' It can be proved that people get money by finding it in the street, but no one would consider this sufficient reason for the assumption that all incomes are earned in this way."

It is the task of science to observe and to report on its observations. It is not useful for it to *postulate* the existence of causative agents, like a Creator, intelligences, or designers who are outside all possibilities of observation. "Let us see how far we can explain phenomena by observable causes" is an eminently sensible and, in fact, very fruitful methodological principle. Evolutionism, however, turns methodology into a faith which excludes the possibility of all higher grades of significance. The whole of nature, which obviously includes mankind, is taken as the product of chance and necessity *and nothing else*; there is neither meaning nor purpose nor intelligence in it – "a tale told by an idiot, signifying nothing." Evolutionism is not science; it is science fiction, even a kind of hoax. It is a hoax that has succeeded too well and has imprisoned modern man in what looks like an irreconcilable conflict between "science" and "religion." It has destroyed all faiths that pull mankind up and has substituted a faith that pulls mankind down . . . Nothing is "higher" or "lower"; everything is much of a muchness, even though some things are more complex than others – just by chance. Evolutionism, purporting to explain all and everything solely and exclusively by natural selection for adaptation and survival, is the most extreme product of materialism. (8)

Alternative Perspectives

Although the scientific theory of evolution is based on many undisputed empirical observations, it cannot explain other aspects of the process of creation. For instance, mechanical evolution cannot account for the remarkable coordination of development between different species, such as flowering plants and insects (co-evolution). Their interrelationship is expressed as "complex interlocking life cycles where the larval stages of an insect must exactly correspond to the flowering cycle of a plant, or the extremely varied forms of protective mimicry and coloration."

The observed fact of evolution is accepted by all. The great part played in it by genetic mutation and the selective influence of the environment, both living and non-living, is also unquestioned. That this eliminates weak strains and even species ill-adapted to the environment or to a change in the environment is also common ground. We affirm, however, that no mechanism *without intelligence* will account for the facts in their totality. The mistake consists in arguing from a particular instance of adaptation to a general principle of blind, undirected evolution. This

principle cannot be made to account satisfactorily for progress. Nor will it account for coordinated development. Both of these required a directive intelligence, if the results observed were to be obtained within the time available and within the conditions that existed. (9)

Evolution is a much richer and broader concept than that commonly associated with science, biology and Darwin. "Evolution is a central, even eschatological concept, intuitively sensed by humankind as a force that drives it in diverse ways to better its state."

Evolution must now be viewed as an immense and comprehensive phenomenon, influencing not only the behaviour and physiology of plants, animals, and humans, but manifesting itself throughout the universe and at all levels, subatomic through galactic. Evolution also influences the development of our minds, something quite elusive to materialistically oriented scientists, and the notion of the evolution of consciousness must likewise be considered legitimate domain for investigation. When we speak of evolution we may consider the evolutionary process at any level of analysis within the universe as we know it: subatomic particles, atoms, molecules, cells, tissues, organs, organisms (plants, animals, humans), societies, planets, stars, galaxies and meta-galaxies. (10)

The scientific understanding of reality is restricted to its physical components and excludes its metaphysical and spiritual aspects. "One of the major difficulties of biological science has been its effort at excluding all non-scientific thought about evolution as qualitatively irrelevant to the subject."

Western science definitely restricts itself to the study of physical, material phenomena; there has traditionally been no room for concern with immaterial properties (mind, consciousness, meaning, and all things "psychic"). Scientists have subscribed only to the mechanics and explanation of rational reductionism. As a group, they view the universe and life as a mere conglomeration of physiochemical processes and interactions . . . The most open-minded scientists admit to the failure of their various disciplines to synthesize their knowledge to a more fully human understanding of reality. The leading physicist Erwin Schrödinger, for instance, compares the scientific picture of reality with an impressive blueprint of figures and facts that is still vastly incomplete. It tells us a great deal about the order of phenomena in nature but says nothing about the relative mean or relevant meaning of that order, that which ultimately matters to us. "It knows nothing of beautiful and ugly, good or bad, God and eternity." (11)

Science is essentially deterministic, based on cause and effect and predictable outcomes with virtually no room for free will and creative evolution. In the words of the acclaimed inventor Arthur Young: "Purpose and motive must be excluded. Clinging to this principle denies science access to a recognition of life's essential dynamic, by which it thrusts not only against

the flow of entropy, but also against any restraint, and creates exuberant variety where necessity would at best maintain a monotonous repetition.”

In one sense the history and development of the human race can be seen as an expansion of the boundaries of knowledge and understanding of our place in the universe. From this standpoint, evolution is seen as a progressive process of transformation or metamorphosis. “We should view the evolutionary force in man, and in all life, as the promise of self-transcendence. It is not a compulsive force like gravity, if indeed it is a force at all, but it induces internal transformation.”

At each stage in evolution the universe expands to the human mind. The first limit of his horizon is nature. God is the trees and the sea and the wind. Then his consciousness expands one step and so does his universe. Now the planets represent divinity, and animism, once the good, is now the enemy of the better. Again the mind opens. The sun is now seen as the Absolute, subtending and controlling the planets: gods serving God. Later the sun is seen to be only one of many suns in a galaxy of suns and – faster and faster the horizon recedes – the galaxy is only one of innumerable galaxies in a greater whole. This lies at the end of a road where thought cannot reach at all. At each stage man has to abandon the secure, the trusted – he has to struggle with the denying force of inertia. He has to surmount a mental obstacle as once he had to surmount biological obstacles. If he succeeds, he learns more, understands more, gets closer and closer to participating. It may be that he is now required to confront – and accept – the mechanism of his own evolution. (12)

Science now accepts that historically human beings have been subject not only to biological evolution but also to cultural evolution. “An extremely important turn of events occurred. Man himself began to produce a new set of causal factors and, thereby, initiated a new kind of evolution.” These factors can be divided into three broad categories, each connected with certain human capacities:

- Specialized skills, techniques and craft-making which reflect the capacity to invent and use tools
- Language, arts, moral codes and religious beliefs which reflect intellectual and linguistic capacities, creative impulses and spiritual beliefs
- Customs, habits and organizations which arise from the need to live in communities and societies

This constellation of cultural factors underscores the complexity of human evolution and has led to new paradigms and models of the evolutionary process:

A striking way of envisaging all this has been suggested by Teilhard de Chardin. He proposes an extension of a model often employed by geologists, according to which the earth can be represented by a sequence of concentric, spherical shells –

barysphere, lithosphere, atmosphere and biosphere . . . Teilhard proposes to say that with the appearance of man an additional planetary 'envelope' came into being. He calls it the *noösphere*, 'that marvellous sheet of humanized and socialized matter which, despite its incredible small mass and its incredible thinness, has to be regarded positively as the most sharply individualized and the most specifically distinct of all the planetary units so far recognized' . . . Teilhard uses the concept to refer to the *ensemble* composed of man and his various cultures. It has come into being because man has produced culture and by producing it has transformed himself. Within the noösphere the unique process of human evolution has taken place. For modern man has not ceased to be subject to the biological factors which were responsible for his emergence. These factors are still at work. But they are now less influential in determining his history than are cultural factors. (13)

There are alternative approaches to evolution which are more holistic, recognizing the vast complexity and inter-relatedness of all levels of reality. The transformative view of evolution includes the dynamics of mind, consciousness and experience as well as biological factors in the evolutionary process. "Evolution deals with vast and intricate ecological relationships between life forms of varying size and scale both outside and inside the organism. The manifestations of design, pattern, and mathematical principles in nature calls for an expanded view of ourselves and our potentials -- a view that can help us understand evolution as a much more wondrous process than recognized hitherto."

Mother Nature, enchantress of evolution, has provided us with exceedingly beautiful sights to behold – patterns, order, design, and systems in all forms of life. These designs are the result of Mother Nature's "diagrammatic forces" -- forces that have produced such wonders as the patterns on butterfly wings, the shapes of seashells, and the architecture of flowers. These salient characteristics of nature are wholly pervasive, predominant and magnificent. Underlying these beautiful designs are exquisite principles encompassing mathematics and geometric form . . . The universe as a whole, and all its subunits of galaxies, planetary systems, societies, organismic systems, organs, molecules, and atoms, as well as their multilevel interactions, suggest a grand-scale eco-system composed of numerous, mutually cooperative subsystems, all interconnected and reciprocal according to natural laws characterized by their almost divine simplicity, harmony and beauty. (14)

Progressive Models of Evolution

An alternative explanation of evolution was presented fifty years before Darwin by French zoologist Jean-Baptiste Lamarck. It was based on the concept of "inheritance of acquired characteristics," in which an organism can pass on certain characteristics that it acquired during its lifetime to its offspring. He posited that individual efforts during the lifetime of an organism

were the main mechanism driving adaptation to the environment. Lamarck viewed evolution as a complex, self-regulating “psycho-spiritual transformational process.”

Lamarckism basically holds that evolution is a purposeful and directed operation, primarily under the conscious effort of the organism itself. In response to certain external conditions and inner needs, the organism makes certain efforts, and these efforts are reflected over time in the anatomy and physiology of the organism. The organism’s efforts and achievements are stored in the memory, with these memory engrams presumably registered in the hereditary (“genetic”) substrate within the cells. Certain need-related, repeated patterns of behaviour, then, may systematically alter (or “transmute”) the genetic base over numerous generations, eventually resulting in a new or transformed species. (15)

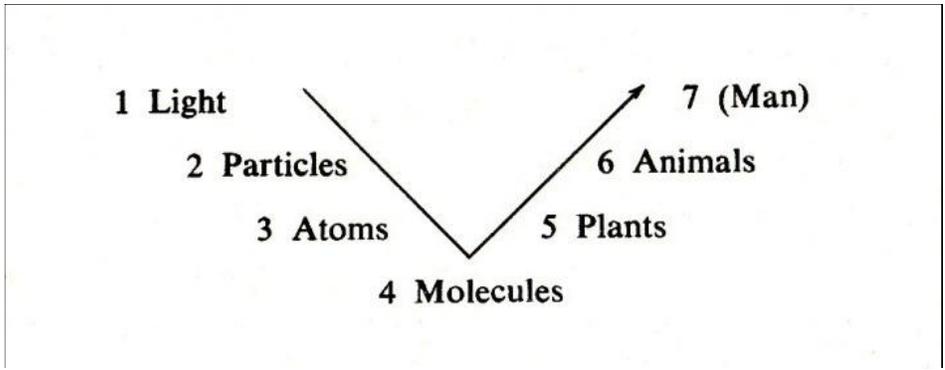
Although Darwin initially accepted many of the tenets of Lamarck’s theory, he later rejected it, as did the neo-Darwinians. However, it was embraced by French philosopher Henri Bergson, who put forth his own theory of Creative Evolution in the 1800s. More recently, there has been an upsurge in interest by some scientists who have presented a revised version of Lamarckism, supported by studies in the field of genetics that suggest the possible inheritance of behavioural traits acquired by the previous generation.

There are other progressive schools of thought that see evolution as purposive and not accidental. For instance, there is some evidence from researchers such as Lyall Watson (*Lifetide*) and Rupert Sheldrake (*A New Science of Life*) that telepathy may play a role in the evolutionary process: “The basic idea is that as selected members of a given species learn significant new behaviors, these can spread telepathically to other members of the species. If beneficial new behavior recurs with sufficient frequency over time, then it may lead to a major evolutionary progression in the species.”

One of the most intriguing new conceptions of evolution was developed by Arthur Young, inventor of the Bell helicopter. He argues that evolution proceeds through stages and levels of organization, reaching its culmination in the flowering of human consciousness: “We have evolved through billions of years, from photons and atoms, through molecules, cells, and ultimately through animals to reach the stage at which we could be born human and start learning to talk at two years of age and, in some cases, write symphonies at seven.”

We have worked long and hard to reach this state, and we have done so by our own efforts. And now the question: what has sustained us in this climb? There can be only one answer. It is sustained by the basic and most fundamental of all powers, the premonition of a goal implied in the photon that started it all off. This premonition sustains the quest. It is the thrust, the passion that makes life continually try to excel itself to evolve and, in almost all mankind, has led man to postulate a state of being beyond himself. . . . The source of the faith in what is beyond oneself is a timeless overview, the same dynamic orientation that has pushed the physical vehicle through its development and that has guided our steps up the ladder of being since the universe first came into existence. (16)

Young proposes a theory of the process of evolution consisting of seven stages reflecting seven *Kingdoms of nature*. The sequence of Kingdoms is given a diagrammatic representation as an arc depicting the descent and ascent of the evolutionary process:



The seven stages are cumulative and include one another: “Each Kingdom and each power includes what has gone before and adds a contribution of its own. Each Kingdom is a level of organization which depends on the one preceding.” So, for instance, animals feed on plants, plants organize molecules, molecules combine atoms, atoms organize protons and electrons, which in turn are convertible into photons (light energy). Young further elaborates and adds detail to the seven-fold evolutionary process, as depicted in the table below:

<i>Kingdom</i>	<i>Power</i>		<i>Image</i>
1 Light	Potential		Point
2 Nuclear	Binding		Line
3 Atomic	Identity or form		Circle
4 Molecular	Combinatio (or separation)		Two circles
5 Plant	Growth or organization reproduction		Chain
6 Animal	Mobility		Chain with side chains
7 Human	Consciousness		?

Some of the fundamental principles outlined in Young’s theory of evolution include:

- The universe is a *process* put in motion by purpose.
- The development of the process occurs in *stages*.
- There are *seven* stages.
- Each stage develops a new *power*.
- Powers are *cumulative*; each one retains the powers developed in the previous stages.
- Powers are evolved sequentially in what are called *kingdoms*.
- *Arc of process*: The early stages of a process take on increasing constraint until it reaches a maximum point where there is a *turn*. The latter stages of the process see the conquest of the constraints and the development of freedom. Freedom in the first half is random, in the last controlled.
- The early stages of *involution* in which the process is descending are more involved in matter and hence more constrained. In the latter stages the process is moving up into higher forms which are more *evolved* and free.

The theory of evolution proposed by Young is organic and multi-dimensional in nature, encompassing a scale of energies, potentialities and intelligences that stretch from the infinitesimal world of photons (light) to the vast realm of galaxies and beyond – the ‘Great Chain of Being.’

Many of the world’s spiritual traditions and esoteric teachings describe evolution in terms of *inner development* and the refinement of human consciousness in the context of a harmonious relationship with the greater evolution of the cosmos. Gurdjieff, for instance, stressed that human evolution, both individually and collectively, could only be understood in relation to the evolutionary cycles of organic life, the earth and other planets. “Everything in the world, from solar systems to man, and from man to atom, either rises or descends, either evolves or degenerates, either develops or decays. *But nothing evolves mechanically.* Only degeneration and destruction proceed mechanically. That which cannot evolve consciously – degenerates.”

The evolution of man can be taken as the development in him of those powers and possibilities which never develop by themselves, that is, mechanically. Only this kind of development, only this kind of growth, marks the real evolution of man. Humanity, like the rest of organic life, exists on earth for the needs and purposes of the earth. And it is exactly as it should be for the earth’s requirements at the present time . . . The evolution of huge masses of humanity is opposed to nature’s purposes. But the evolution of a certain small percentage may be in accord with nature’s purposes. Man contains within him the possibility of evolution. But the evolution of humanity as a whole, that is the development of these possibilities in all men, or in most of them, or even in a large number of them, is not necessary for the purposes of the earth or of the planetary world in general . . . But, at the same time, possibilities of evolution exist, and they may be developed in *separate* individuals with the help of appropriate knowledge and methods. Such development can take place only in the interests of the man himself against, so to speak, the interests and forces of the planetary world. The man must understand this: his evolution is necessary only to himself. (17)

Gurdjieff taught that real human evolution is conscious and directed, not mechanical or hap-hazard: "Evolution is the result of conscious struggle. Evolution can be necessary only to man himself when he realizes his position, realizes the possibility of changing this position, realizes that he has powers which he does not use, riches that he does not see. And, in the sense of gaining possession of these powers and riches, evolution is possible."

Man as we know him *is not a completed being*; nature develops him only up to a certain point and then leaves him, to develop further, *by his own* efforts and devices, or to live and die such as he was born, or to degenerate and lose capacity for development. Evolution of man in this case will mean the development of certain *inner* qualities and features which usually remain undeveloped, *and cannot develop by themselves*. Experience and observation show that this development is possible only in certain definite conditions, with efforts of a certain kind on the part of man himself, and with *sufficient help* from those who began similar work before and have already attained a certain degree of development, or at least a certain knowledge of methods. We must start with the idea that without efforts evolution is impossible; without help, it is also impossible. (18)

Sufis teach that "man rose from the sea" and humanity is in a dynamic state of evolution, covering aeons of time. They speak of "the evolution of man and the development through which he may regain his origins, an evolution which is a path 'retraced' as one might call it, by pushing his consciousness forward by the *exclusion* of limiting factors and the *inclusion* of others; to a destiny that is generally referred to as 'beyond the stars'." From this wider perspective, humankind is not the final stage of the evolutionary journey: "When you have traveled from man, you will doubtless become an angel; after that you are done with this earth; your station is heaven. Pass again from angelhood and enter that ocean so that your drop may become a sea."

The Sufis hold that 'awakening' from the 'sleep' of everyday existence to a perception of a 'higher reality' is the primary task of human life and is, in fact, our evolutionary destiny. Spiritual growth is viewed as the development of latent abilities present, in embryonic form, as a potentiality in all human beings. "For the Sufis, evolution is a reality but something that is not accidental. Nor does 'natural selection' play a role; evolution is a much broader phenomenon, characteristic of the universe itself and of life everywhere. It is, in the case of humanity, under the control of human beings in the form of a conscious and potentially continual process."

Man is the product of evolution. He continues this process. But the 'new' faculties for which he yearns (generally unknowingly) come into being as a result of necessity. In other words, he now has to take part in the development of his own evolution. "Organs come into being as a response to necessity. Therefore increase your necessity." There are realms of mind far beyond the ordinary state of man. These advanced realms cannot completely be rendered in the language of the brain as it stands. (19)

In the 13th century the great Sufi master Rumi foreshadowed Darwin's theory of evolution, not so much in biological terms but as a psychological development which paralleled biological and behavioural evolution. He taught that the awakening or activation of a new 'organ of higher perception' occurred through necessity and application of conscious effort. Some of the initial manifestations of this evolving part of humanity are said to include "flashes of extraordinary achievement, telepathy, second sight, intuition and the intimations of dreams."

The driving impetus of spiritual evolution is unconditional, all-encompassing love:

The force of psychological evolution, according to the Sufis, is love. Not love as commonly understood, which is a feeling projected onto secondary phenomena, but a primary force, akin to a profound yearning for oneness or unity. When this advanced developmental state of unity is attained, the distinction between 'I' and 'thou' is dissolved and the condition is called 'ecstasy' (standing outside oneself). This is to be viewed as the attainment of a very profound and significant developmental condition, and not just a vague, wonderful, blissful feeling, a deteriorated meaning often given to this word. The would-be Sufi's aim is the achievement of this state through the renunciation of the conditioned culturally-determined self. Man's psychological evolution is seen as a journey from an original state of unity, through a separation, to a yearning for oneness, and a return to unity through the 'death' of the conditioned self and a spiritual rebirth. In one way or another, all the world's religions proclaim this message. (20)

The Sufi teaching of a progressive evolutionary development is echoed in other spiritual traditions such as Advaita Vedanta and Zen Buddhism:

There must have been some cause to give rise to the five elements and the manifest universe out of the Absolute state. This original cause is beyond explanation. The primary elements – space, fire, air, water and earth – were formed out of the Highest, as a result of friction and interaction. As the process continued, a variety of forms were created leading to the vegetable and animal kingdoms. In the vegetable kingdom we find shrubs, plants, trees, etc. which grow in one place and do not move about. The next stage of evolution is the animal kingdom, which abounds in birds, animals and human beings. These species have the privilege of movement and communication. Human beings, although biologically animals, are a superior species. Because of the highly evolved indwelling principle, which is Consciousness, a human being is able to acquire wisdom intuitively and transcend itself into the Highest. During the process his consciousness, initially conditioned to the body-mind, develops into the Universal consciousness . . . Ultimately the Universal Consciousness subsides into the Absolute. (21)

Zen Buddhism views evolution as the development of consciousness, rather than forms existing within the fabric of existence. "The activity of the universe, through thousands of millions of years up to the present, can be regarded as a blind but not unreasonable attempt to

produce consciousness in man. Although the universe may seem to be moving without a purpose, from the anthropocentric point of view it has progressed. It has, of course, made innumerable trials, and produced innumerable failures, but it made a hit in producing consciousness. And this consciousness is now asking itself, 'What is existence?'"

The development of consciousness has been described as an "interior spiritual revolution" which transforms our understanding of everyday experience by actualizing attunement to the 'Divine Mind.' In the words of Zen scholar D.T. Suzuki: "The plainest truth is that everything we experience is saturated, interfused, interpenetrated with spiritual significance, and for this reason my handling the lute, my standing in the snow, my feeling hungry or thirsty after a hard day's work, is charged with super-consciousness."

The blind pushing on of existence, which wanted to recognize itself without being aware of this desire, proved successful when it created human consciousness and therefore obtained its own eye with which to examine itself. Human existence has succeeded in becoming conscious of its own beauty. To this extent it has raised itself to a higher level than can be found in the animal world or in the plant and mineral worlds. This level is rising continuously, and new beauty is now consciously created. This is intentional evolution (22)

Conscious Evolution

Conscious evolution, sometimes called "deliberate" or "intentional" evolution, applies to individuals and not the entire human race. Although humanity has grown in size, strength and dominion through millions of years of development, there has not been a commensurate and parallel growth of consciousness. Yet there is an evolutionary yearning at the core of individual and collective humanity: "Man has the capacity and duty to make the bridge between himself and the rest of creation. He attempts this in the physical world by technological and material methods. In his 'psychic' life he tries to do the same."

The concept of conscious evolution is based on principles very different from the Darwinian theory of evolution:

The idea of evolution – an idea of genius in the mind of Darwin – has become an enervating and deceptive one in its popular perversion. Darwin, describing the addition of new species and even more elaborate forms in the course of geological ages, the predominance with each epoch of a new and higher kingdom of nature, felt and revealed the *growth* of the Earth. He showed how the physical Earth matured, just as physical man matures. And how new species were *added* to the Earth as it grew up, just as new functions are added to man as he grows up. This clearly has nothing whatever to do with the possibility of a given species transcending itself . . . Today, the word evolution is used indiscriminately for the process of

growth, the process of refinement, and for the process of regeneration. It is even distorted into a kind of manufacturer's guarantee that every individual shall one day develop into a Buddha, and that without any effort or intention on their part all men shall inevitably become wise. This is as fantastic as to believe that letting his canoe drift down some river, a traveller will inevitably be carried to the summit of the highest mountain. The process of growth is indeed a vast cosmic river, flowing eternally from the Creator. Relying on its current alone, there is only one direction in which man can go – that is, downwards. For to remount the stream needs a different understanding, a different energy and a different effort. (23)

The concept of 'conscious evolution' is found in many Eastern spiritual traditions. Both Hinduism and Buddhism speak of endlessly repeating cycles of birth and death. Both the "dance of Krishna" and the hierarchy of gods in Indian mythology can be viewed as an allegory of inner development. The Buddhist concept of a Bodhisattva who vows "to save all sentient beings" following enlightenment also implies an evolutionary theme.

The Sufis hold that the development of higher forms of perception and understanding are attained through conscious evolution: "There is a possibility of human beings taking part consciously in the work of evolution and activating a nascent, evolving organ of perception beyond those senses which are formally recognized by science as it stands today."

Sufis believe that, expressed in one way, humanity is evolving to a certain destiny. We are all taking part in that evolution. Organs come into being as a result of the need for specific organs (Rumi). The human being's organism is producing a new complex of organs in response to such a need. In this age of the transcending of time and space, the complex of organs is concerned with the transcending of time and space. What ordinary people regard as sporadic and occasional bursts of telepathic or prophetic power are seen by the Sufi as nothing less than the first stirrings of these same organs. The difference between all evolution up to date and the present need for evolution is that for the past ten thousand years or so we have been given the possibility of a conscious evolution. So essential is this more rarefied evolution that our future depends on it. (24)

Rumi has been called a "creative evolutionist" since, to him, evolution is the metamorphosis of the spirit: "Love is the evolutionary principle of all existence." Rumi envisions evolution as a series of deaths and subsequent rebirths to higher stages of development:

Matter is the foundation of Evolution. There was 'fire, air and water as heat, wind and cloud' until the emergence of a new form of existence – the plant life. From plant life emerged animal life which assumed its highest form (so far) in human life. Rumi does not believe that the process of creative evolution has ended with the emergence of man in the existing spatio-temporal order. He has a contagious faith in the unlimited possibilities of man's development. Man has developed through a dynamic process of evolution. He has passed through a series of deaths and with

every death he has risen higher in the scale of human values. Why should he then fear the death of his body and not rise to a stage where death dies itself? (25)

In *The People of the Secret*, Ernest Scott argues that the evolution of humanity involves the activation and utilization of a progression of more and more refined energies, culminating in the unitive energy of objective love:

Over an immense period of time a process of life has been developed on earth and has culminated in man. The process has been achieved by making available on the planetary scene a succession of energies, each higher in frequency than the one before. Constructive, vital, automatic, sensitive, conscious and creative energies have been "switched in" in turn and have given rise to the entire evolutionary progression from molecule to man. The action of these energies – seen first in biology and then in history – suggests that each new, higher frequency is applied while life is still struggling to come to terms with the one before. Here may be an important pointer. Man was capable of no more than minimal consciousness when he was confronted with creativity. Each new stage is switched in long before the organism is fully deploying the energy before. In the natural progression, it can be assumed that at some stage man would have inherited unitive energy – the energy of love. By this is meant objective love and not its precognitive echo in sexual or polar love. Seen against the progression of energies along the evolutionary process, it may be supposed that unitive energy would lie far in the evolutionary future. Man has not yet accommodated to consciousness, much less to creativity. (26)

Conscious change is necessary in order to adapt to the rapidly changing circumstances of our contemporary world. Both biological and cultural evolution are clearly inadequate to enable humanity to meet the challenges of the modern world. "The time has come to take our own evolution into our hands and create a *new* evolutionary process, a process of conscious evolution. The human predicament requires a different kind of education and training to detect threats that materialize not in instants but in years or decades – we need to develop 'slow reflexes' to supplement the quick ones. We need to replace our old minds with new ones."

Human beings, like all other organisms, have to adapt to the environment in which they live. For most of the history of life our ancestors evolved biologically, as do all living things. (Biological evolution consists of changes in the information encoded in our genes. It typically operates over thousands of generations.) Then, for the relatively brief period of human prehistory and history – a few million years – adaptation took place primarily by means of cultural change; the development of language and tools; the invention of agriculture, cities, industry and high technology. Cultural evolution can be much more rapid than biological, for it involves alteration of information stored in minds or in books, tools, art, and other artefacts of societies. Cultural evolution can make significant changes in a matter of decades or less. But the rapid changes that human beings are making in the world now have made even the pace of most cultural evolution far too slow. As a

result we are losing control of our future. The serious and dangerous mismatch is this: civilization is threatened by changes taking place over years and decades, but these changes are too *slow* for us to perceive readily . . . At the same time, the changes are much too *rapid* to allow biological or cultural evolutionary processes to adapt people to them. *We are out of joint with the times, our times.* (27)

Psychologist Robert Ornstein argues that humanity is now at a crossroads in terms of evolutionary development and requires a dramatic shift in consciousness to embrace a more universal and holistic world-view: "Our normal upbringing, focusing on the individual mind and priorities, may work against us. A shift towards a view of humanity as one animal, toward relinquishing the 'every man for himself' attitude, might enable us to take those 'selfless' steps that could begin to solve our collective problems."

Our biological evolution is, for all practical purposes, at its end. There will be no further biological evolution without conscious evolution. We have to take command of our evolution now and begin a massive program for conscious changes in the way we think, the way we relate to others, the way we identify with the rest of humanity. The pace of change is far too great for us to try to adapt unconsciously. We have to take our very evolution into our own hands and do for ourselves what biological evolution has done for all life; adapt to an unprecedented new world. Our great brain gives us the extra capacity to become aware of ourselves, to an extent greater than any other animal. It gives us the capacity to imagine a future, to change the world . . . All human beings have, within themselves, entirely unparalleled adaptations, new adaptations that need to be nurtured deliberately in our schools, in our training, and in our lives. Conscious change can't do everything, since the inherent automatic moves of the mind exist for a good reason, but with a slight shift in our priorities, we may be able to adapt much more than we'd believe, and adapt in the right direction. (28)

Ornstein advocates a healthy altruism which is concerned with the welfare of *all* people. "More and more people, because of the real changes on earth, are beginning to consider their family to be all of humanity." Compassion, service, and generosity can become reflections of our sense of common humanity.

At this time in our history it is important that we individually and collectively begin to unite and harmonize the complementary insights of the rational, emotional, intuitive and spiritual aspects of our nature. "There is a grandeur in the conscious evolution of the mind, with an endless supply of possible capabilities, waiting to be called in response to the new necessities of the new world we have created. Undertaking conscious evolution, with an understanding of the complexity of our myriad minds within, may be easier, closer at hand, and more liberating than we might normally think."

The development and evolution of consciousness begins with self-observation and self-understanding: "Self-observation enhances the capacity for change of mind. Associations can be made between voluntary acts and their consequences."

For millennia individuals have been attracted to the idea of "higher selves" or "mystical experiences." We now need to be aware that these experiences are important for our future and recognize that they are within the range of all. We can remake our minds by shifting the mind in place. The traditional name for controlling our selves or taking hold of ourselves is *will*, an unfashionable term nowadays. If there is a will, it will reside in the selection of the differing minds that we call into play. The paradox of our shifting minds is resolved this way: conscious control is a small and weak force in most minds, a force that we can develop by self-observation. The development of consciousness lies not far away in a bedazzled or dazed mystic trance, but in conscious selection. This is the third kind of evolution we possess. Natural selection begins blind. Neural selection in youth is more or less an automatic transfer of the world to the mind. Conscious selection is the way we can take our evolution in our own hands by developing the ability to select parts of the mind . . . This is a time when the need for conscious evolution is becoming a necessity for all humanity, not just a few individuals. The traditional description of humanity as blind or asleep, as an automaton, all speak to a view that we usually are the prisoners of our automatic selection routines. (29)

When seen from an ultimate, enlightened perspective evolution is not a progressive process, producing and creating "more out of less," leading to spiritual awakening. Advaita Vedanta teacher Jean Klein: "Evolution in the strict meaning of the word, is only an unfolding, a passing from what is implicit to that which is explicit, from what is not manifested to that which is manifested. We cannot rely on it in our search for liberation. Liberation is not a problem of evolution, for no evolution can lead to liberation, which is the result of discernment only."

Q: I am interested to know what the relationship is between consciousness and evolution. Did Neanderthal man have sages? Or is awakened consciousness a recent phenomenon that is tied in somehow with the evolution of the species?

A: There is only consciousness. You cannot apply evolution to consciousness. Consciousness is. But the expression of consciousness is without end, is a basket without a bottom, though the form may change. What does it mean, evolution? It is only a category of the mind. When the prototype of a thing has changed, it is no longer here. It is finished. It is only the mind that "changes" it from one thing to another thing. Because in reality all appears and disappears in consciousness and there is no independent phenomenal continuity. But that brings us too far in the problem of evolution. Consciousness has nothing to do with evolution. Evolution is a thing of the mind. (30)

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