DARWINISM

Science Made to Order

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P. A. Wahid

Adam Publishers & Distributors
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Adam Publishers & Distributors
(Exporters & Importers)
1542, Pataudi House, Darya Ganj,
New Delhi-2
Ph.: (O) 23282550, 23284740,
Fax.: 23267510 (M) 98102 96541
e-mail : apd@bol.net.in,
syedsajid_ali@rediffmail.com

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Evolutionists believe chance cannot create a pin on this planet but it can create Einsteins. How aptly Darwin described his theory as *devil's gospel!* They claim the theory of evolution is a proven fact but ignore to give the details of the key paper(s) that proved it.

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Preface

Darwin's theory of evolution even after 150 years of its publication remains controversial. When a theory remains unacceptable for such a long time, there is prima facie justification for a probe. It has to be a two-pronged investigation; one to find out why it is controversial and the other to find out how it survives the controversy. In my previous work *The Computer Universe: A Scientific Rendering of the Holy Quran* (Adam Publishers, New Delhi), I have included an analysis of the scientific merit of the theory and a critical evaluation of its conceptual integrity and predictions. On both these fronts, the theory has been a total failure. This raises a very important question as to why the theory is not rejected. Some of these aspects are addressed in the present work.

This book covers various issues relating to the theory including the question of its survival and is intended to expose the inadequacies and false claims about Darwinism to the general public for their judgement. These include scientific findings that question the theory, lack of supporting evidence and existence of natural evidence against the theory. The opinions and verdicts of scientists who do not accept the theory are also projected with due importance. There are also very many sources including websites that wage verbal battles for and against the theory. The theory appears destined to be rejected like steady state cosmology.

Praise be to Allah – the Creator and Sustainer of the worlds, for giving me the strength, determination and

perseverance all through this work. I bow to Him in all humility.

January 28, 2007 P.A.W.

1. INTRODUCTION

There is a general feeling that Darwinism faces opposition from monotheistic religions because of its ideological disparity and not because of its scientific handicaps. This is not correct. Although it is true that monotheistic religions do lock horns with Darwinism from ideological viewpoint, the theory also suffers from serious scientific drawbacks and inadequacies, which are continually being exposed by the scientific community. Unfortunately these exposures, no matter how grave they are, remain usually unpublicized. Even if a report comes in the media against the theory, it would be feeble without the usual lustre needed to draw the attention of the public. Scientists may also have the fear of being marginalized by writing against it. Yet it is heartening to see several scientists are now coming out in the open to call a spade, spade. Evolutionary biology generates so much misleading information to uphold Darwinism. Darwinism has the stamp of atheism and the unflinching support of orthodox evolutionists over a century and a half. In evolutionary literature, one does not find a single proven aspect of the theory despite evolutionists' chanting "evolution is a scientific fact". Unlike other scientific theories evolutionary theory is vague and fluid. Consequently there are various shades of explanations. One wonders what purpose is served by the evolutionary literature with no clear answer to any of the questions relating to the origin of biodiversity. There is not just one explanation for an observed phenomenon but there will be as many explanations as there are scientists who attempt to explain it. Even after a century and a half the theory remains as ambiguous as it was in Darwin's time. Yet it is not voted out by the scientific community. It will never dawn upon the evolutionist lobby that the views it nurtures and propagates about the origin of species are

wrong.

"Life is complicated. It comes in all sorts of shapes, sizes, places, and combinations, and has evolved a dizzying variety of solutions to the problem of carrying on living. Yet look inside a cell and life takes on, if not simplicity, then at least a certain uniformity…And looked at in broad swathes, life shows striking generalities and patterns. Every mammal's heart will beat about one billion times in its lifetime. Both within and between species, the density of a population declines in a regular way as the size of individuals increases. And the number of species in all environments declines as you move from the equator towards the poles….Scientists have known for nearly two centuries that larger animals have relatively slower metabolisms than small ones. A mouse must eat about half its body weight every day not to starve; a human gets by on only 2%... large animals have proportionately less surface area, lose heat more slowly, and, pound for pound, need less food…All the business of life needs energy….if you know the rate at which an organism burns fuel – or if you know how big and hot it is, and apply the metabolic theory – you can make a suite of predictions about its biology, such as how fast it will grow and reproduce, and how long it will live." [1]. Every species that inhabits this planet originated according to preset rules and design. None can violate them. One requires only commonsense and not the intelligence of a scientist to realize that a species like *Homo sapiens* cannot evolve by chance.

All organisms are information processors: they store a biological program and replicate it. All cellular functions are regulated through information transfer networks. They constitute cellular computation systems allowing cells to evaluate multiple internal and external inputs in order to make appropriate decisions. A living cell is thus a highly sophisticated irreducibly complex organic

machine. If we remove any part from the cell, it will cease to function. Such is the irreducible complexity of the cell so beautifully designed and perfected by God. According to Darwin *et al.*, millions of living species around us evolved on their own by chance through the unconscious purposeless natural selection!

The anomalies of Darwin's theory are many and varied. It is strongly recommended to read his book *The Origin of Species* [2] to have first hand information about his views and their basis. There is no hard science in that book requiring specialized knowledge for its understanding. The book is immensely readable because of the linguistic beauty, clarity of expression and honesty of the author. But you will not find science in it. One would find it impossible to categorize it. It is not science, not fiction, not a travelogue or a biography. It is just Darwin's thoughts and views on how species originated.

A dispassionate analysis is made of the theory of evolution in three ways, first by reading Darwin's book dusting for science in it, second by searching scientific literature for evidence of support, and third asking evolutionists to produce *unambiguous* proof of their claims. I do not assume evolution had taken place or is taking place. Those who claim evolution had taken place must offer solid evidence to prove it. It is in its absence this book assumes relevance. This book is an attempt to lay bare some of the facts against the theory before the general audience to enable them to reflect and decide what Darwinism is – science or fantasy? It is up to them to pass the judgement.

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2. DARWIN'S THEORY OF EVOLUTION

Charles Robert Darwin was born at his family home, the Mount House, in Shrewsbury, Shropshire, England, on 12 February 1809. He was named after his uncle Charles who died a few years before his birth, and his father Robert. He was the fifth of six children of Robert Darwin (a wealthy physician) and Susannah Darwin. His mother died when he was only eight. Darwin married his cousin Emma Wedgwood in 1839. They had ten children.

Darwin showed strong aptitude for scientific reasoning right from his early years. The mentoring of Dr. Robert Grant considerably strengthened this inclination. Grant used to explain to him Jean-Baptiste Lamarck's evolutionary ideas and introduced him to marine biology and the use of the microscope as a scientific tool. This interest in marine invertebrates was to remain a life-time passion with Darwin. He took a degree in Divinity at Christ College, Cambridge University, in 1831. Two young men namely Rev. John Henslow, trained in botany and mineralogy, and Rev. Adam Sedgwick, a leading member of the rapidly expanding community of geologists, whom he met in Cambridge, impacted his future life considerably. Henslow introduced Darwin to Captain Robert Fitzroy of H. M. S. Beagle when the latter sought a companion for collecting information on geology and natural history during a proposed circumnavigation of the globe. The five year Beagle's journey through a wide cross-section of the earth's environments provided Darwin the most awaited opportunity to observe and collect information on biodiversity in its pristine form. Darwin spent most of these years investigating the geology and biodiversity of the lands he visited, particularly South America, the Galapagos Islands, and pacific coral islands. During the voyage

he also read Charles Lyell's newly published *Principles of Geology*, a philosophical vision of rigorously empirical historical science. "This vision influenced Darwin profoundly, as he freely admitted. While he became convinced by his observations and reading that the fossil record and current distribution of species could only be due to the gradual transformation of one species into another, he was determined to articulate a theory that measured up to Lyell's principles. The crucial event in convincing him that this was to be his life's work was likely a visit to Cape Town, South Africa on the Beagle's return to England…. Darwin had been deeply impressed by Herschel's *Preliminary Discourse on the Study of Natural Philosophy* when it first appeared a year before the Beagle set sail…And, in the very first paragraph of *On the Origin of Species,* Darwin looks back to this 'Hurrah', attributing the idea that the origin of species is 'that mystery of mysteries' to 'one of our greatest philosophers', without mentioning Herschel by name. The first mention of the possibility of an evolutionary solution to this problem is in his *Ornithological Notebooks*, in a note written shortly after departing Cape Town." [1].

In the mid-1800s, Darwin and English biologist Alfred Russel Wallace independently conceived of a natural mechanism for life to change which Darwin called *natural selection*. Over time, the theory propounded by Darwin and Wallace became increasingly viewed as Darwin's alone [2]. The writings of English economist Thomas Malthus had also influenced Darwin's ideas profoundly. In his book *Essay on the Principle of Population* published in 1797, Malthus expounded that most policies designed to help the poor were doomed because of the relentless pressure of population growth. A nation could easily double its population in a short period of two decades causing famine and misery to all

[3]. Extension of this idea to the plant and animal world led to the notion that animals and plants must also be experiencing the same population pressure. It follows therefore that in the struggle for existence, if any species has some heritable trait that helps it to withstand the competition and breed more successfully, it may leave more offspring behind than the others. In this way the trait is transmitted to the future generations indicating the survival of the fittest. Thus Malthusian theory of geometric population explosion against arithmetic proportion of food increase (despite the fact that the theory flopped miserably in later years) stood in good stead for the formulation of an imaginary mechanism (natural selection) for evolution.

Darwin systematically and elaborately presented his ideas about the origin of species in the book, *On The Origin of Species By Means Of Natural Selection, Or The Preservation Of Favoured Races In The Struggle For Life,* which was originally published in November 1859 by John Murray, London, and which in the later years became the guiding principle of biology as a whole. The first printing of 1,250 copies was sold out on the very first day, and the book (*The Origin of Species* for short*)* has remained in print ever since with several publishers having published it.

Darwin died in Kent, England, on April 19, 1882. He was given a state funeral and buried in Westminster Abbey. There are several books and other sources including websites that provide extensive biographic information and discussions of Darwin's theory of evolution [4, 5, 6, 7].

Darwinism

Charles Darwin was not in fact the originator of the idea of evolution. The idea of evolution was there much before Darwin's time. The first recorded evolutionary statement is approximately

570 BC old, from a Greek philosopher named Anaximander (611-546 BC). He hypothesized that: "In the beginning there was a fish-like creature with scales that arose in and lived in the world ocean. As some of these advanced, they moved onto land, shed their scaly coverings and became the first humans." [8]. In 1791 Darwin's grandfather Erasmus Darwin, a leading poet of his day, expounded the theory of evolution in the first volume of his medical book "Zoonomia" including the hypothesis of the survival of the fittest by natural selection. The work was published posthumously as a long poem that he called "The origin of society" but for fear of reprisals the publisher changed the title to "The Temple of Nature". A small excerpt from that poem is given below [8].

Hence without parent by spontaneous birth
Rise the first specks of animated earth;
From Nature's womb the plant or insect swims,
And buds or breathes, with microscopic limbs.

ORGANIC LIFE beneath the shoreless waves
Was born and nurs'd in Ocean's pearly caves
First forms minute, unseen by spheric glass,
Move on the mud, or pierce the watery mass;
These, as successive generations bloom,
New powers acquire, and larger limbs assume;
Whence countless groups of vegetation spring,
And breathing realms of fin, and feet, and wing.

It was therefore concluded that the evolution idea was

not Charles Darwin's original thinking. Even the title of his first book "The origin of the species" appears to have descended from his grandfather's poem "The origin of society" [8].

Charles Darwin believed that species were mutable and could give rise to newer forms if beneficial heritable variation occurred. In this way new species evolved as descent with modification. Darwin assumed that variations occurred in species by chance. We now know that heritable change can occur in biological organisms as a result of genetic mutation. A change in genotype is a heritable change that causes a change in phenotype also. Mutations include changes in DNA structure or composition (point mutation) and changes in chromosome structure and number (chromosomal mutations). Mutations can be produced by certain chemicals (chemical mutagens), temperature, ionising radiations like cosmic radiation and nuclear radiations such as gamma rays, X-rays, etc. Of these, cosmic radiation, to which the biological organisms are naturally exposed, is supposed to be the most important agent in causing spontaneous mutations (random mutations) for evolution of new species.

He further assumed that there was severe competition between species leading to struggle for existence. If the variation that occurs in an individual helps in some way to overcome the competition, that individual survives and the variation is transmitted down to future generations. In this way the variation gets preserved in the population through natural selection. Natural selection is a purposeless, unconscious mechanism driven by chance whose result can be manifested only on time scales of the order of millions of years.

The process of evolution of a new species may be summarized as follows.

- A competitive milieu exists in the biosphere.

- Hereditary changes (mutations) occur in the organisms by chance. Cosmic background radiation and other agents are supposed to cause random genetic changes.
- Small genetic changes beneficial to the organism (that give a competitive edge to the possessor) get preserved in the population through a process called natural selection.
- Changes so accumulated over long periods (gradualism) lead to the evolution of new species with grossly different structures and traits.

With the publication of Theodosius Dobzhansky's book *Genetics and the Origin of Species* [9] in 1937 the evolutionary theory started being understood and appreciated as genetic change in populations. This led to the development of the "synthetic theory" also called "modern synthesis" or "neo-Darwinism" which is not just one single hypothesis (or theory) but a multidisciplinary one cutting across genetics, embryology, zoology, botany, paleontology, and molecular biology. The "synthetic" epithet is now often omitted and it is known as Theory of Evolution. Th. Dobzhansky, together with Ernst Mayr, Julian Huxley, the paleontologist George G. Simpson, and the botanist George Ledyard Stebbins are considered the architects of the synthetic theory [10]. According to Futuyma, genetic variations arise in population by random mutation and recombination. Changes in gene frequency brought about by random genetic drift, gene flow and natural selection lead to the evolution of populations. Most adaptive genetic variants have individually slight phenotypic effects so that phenotypic changes are graded. Diversification occurs through separation among populations which in turn results in reproductive isolation among populations. These processes continued over long periods give rise to changes of such great magnitude as to warrant the designation of higher taxonomic levels (genera, family, etc.) [11].

Compared to Darwinism the modern synthesis gives more emphasis to random genetic drift than to natural selection. It recognizes that *genes are discrete entities* through which characteristics are inherited and the existence of multiple alleles of a gene is responsible for variation within a population. Speciation occurs as a consequence of gradual accumulation of small genetic changes. In other words, macroevolution is nothing but multiples of microevolutions.

In *The Origin of Species*, Darwin carefully avoided any discussion of the origin of humans. He made the connections between apes and humans explicit in his second work on evolution, *The Descent of Man* published in 1871. Darwin argued that his theory could account for the emergence of a species capable of self-conscious thought [2]. Darwin also did not broach the question of origin of life in his book in spite of its fundamental relevance to the subject of his work. The phenomenon of life still remains undefined in science. Its origin is also not understood although various hypotheses have been advanced. It is assumed that life originated from non-life. This is also not scientifically proved. Thus all the assumptions that evolutionists make are also affected by the uncertainties about the phenomenon of life itself. Although the theory of evolution has come a long way since Darwin, the core principles laid down by him remain almost unchanged even today.

Rival Theories

No sooner *The Origin of Species* was published than began the critics pointing out problems with Darwin's explanation for the emergence of new species. Darwinism in the latter part of the 19th century faced an alternative evolutionary theory known as *neo-Lamarckism*. This hypothesis shared with Lamarck's original theory the importance of use and disuse in the development and obliteration of organs, and it added the notion that environment

acts directly on organic structures, which explained their adaptation to the ways of life and environments of each organism. Adherents of this theory rejected natural selection as an explanation for adaptation to the environment [10]. For several decades following the publication of the theory it seemed as if it would ever remain under the spell of Lamarckian theory. Natural selection, the engine of evolution according to Darwin, remained controversial. Many biologists argued that there must be some built-in 'direction' to the variation that arose in each generation, helping to push each lineage towards its current state. Many geneticists following the rediscovery of Mendel's laws in 1900 also opposed natural selection. Darwin's idea of gradual alterations in the species through natural selection was not acceptable to them. To Mendelists a pea was smooth or wrinkled, and nothing in between. In order to jump from one allele to another, evolution must make giant jumps – an idea that seemed to clash with Darwin [3].

In the Netherlands, Hugo de Vries advanced a new evolutionary theory known as *mutationism* which essentially did away with natural selection as a major evolutionary process [10]. Mutationists believe that the driving force of evolution is mutation and not natural selection. "…the mutationist school did not, of course, regard mutations as random. They thought that the body had a built-in tendency to change in certain directions rather than others, though they left open the question of how the body 'knew' what changes would be good for it in future." [12].

The *neutral theory* of Motoo Kimura holds that the vast majority of evolutionary changes are neutral or not selective implying that, for any gene, a large proportion of all possible mutants are harmful to their carriers and therefore these mutants are eliminated or kept at very low frequency by natural selection. The theory assumes, however, that many functional mutants can occur

at each locus that are adaptively equivalent to one another. These mutants are not subjective to selection relative to one another because they do not affect the fitness of their carriers (nor do they modify their morphological, physiological, or behavioural properties). Evolution at the molecular level consists for the most part of the gradual, random replacement of one allele by another that is functionally equivalent to the first. The theory assumes that favourable mutations occur, but are sufficiently rare that they have little effect on the overall evolutionary rate of nucleotide and amino acid substitutions [13, 14]. Although these theories do challenge the basic tenets of Darwinism-based evolutionary theory, evolutionists are careful enough to keep the issues at bay by reconciling with them under one pretext or the other.

The theory of *punctuated equilibrium* (PE) questioned the assumption of phyletic gradualism (PG) enshrined in Darwin's theory. Niles Eldredge and Stephen Jay Gould proposed PE in 1972 to explain evolution in the light of fossil evidence [15]. The essence of the theory is that there is sudden appearance of new species in the fossil record punctuated by long periods of species stability (stasis). The species show no appreciable change for millions of years until their extinction.

In 1970, Miroslav Radman, molecular geneticist at the Universite Rene Descartes in Paris [16] and later in 1988, John Cairns, molecular biologist, and his colleagues at the Harvard School of Public Health [17] discovered the phenomenon of *cell-directed mutagenesis* demonstrating that organisms have built-in mechanism to induce mutations of their choice. The discovery contradicted the Darwinian assumption that mutations occur at random solely by chance without purpose.

I proposed in 1998 a *theory of programmed evolution* based on natural evidence, scientific findings and the Quranic

revelations. Treating an organism as natural biocomputer and the divine biological software, the Bioprgram (biological information) as the driving force, evolution of species has been explained not in terms of descent with modification but as partitioning of the biological software into minipackages or microbioprograms. It says the first cell to be created on this planet was not an organism but a cell (biochip) carrying the bioprgram. It is from this common pool, cells carrying microbioprograms (representing each species) were created through programmed partitioning or differentiation like diverse tissues of the body are formed from a zygote carrying the program of the individual. The theory draws much from the phenomena of cell-directed mutagensis and natural software engineering mechanisms (cutting and splicing of chromosomes, chromosomal aberrations, cell division, etc.). It also does not recognize the particulate gene concept. The biological program (the software) exists as stored information in chromosomes (the storage device of the cell, the biochip) in an intangible state like the existence of software and information in our computer memory devices. The absence of gradations in the fossil record does not contradict the programmed evolution. It is consistent with the geological record and PE. The theory has been developed within the framework of the Quran and the phenomenon of life is defined and explained based on the Quranic revelations [18, 19, 20].

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3. WHY DARWINISM IS CONTROVERSIAL?

Darwin's theory of evolution is at best an opinion or a view developed from mere observations. As a naturalist Darwin applied his mind to a vast array of observations he painstakingly made particularly during his Beagle voyage, and giving due consideration to the views of his scientist and philosopher friends, he deduced that new species evolved from existing species when heritable changes occur and get transmitted to offspring. He thought of "natural selection" as the probable mechanism that drives evolution. Although his ideas have been the most widely publicized view on biological origins, it has not been possible to defend this hypothesis with scientific evidence. We also do not find proof in real situation to substantiate his arguments. If anything, evidences and findings are against this perception. A critical analysis of scientific merits of Darwin's theory applying his own lines of argument can be found elsewhere [1]. Only some important aspects of his theory are briefly discussed here. It is also strongly recommended to read his book *The Origin of Species* for getting a first hand view.

Lack of Scientific Basis

Speculative nature of the theory is evident in Darwin's explanations and deductions. Darwin illustrates his theory diagrammatically with the help of a hypothetical example to show how over geological time scales, species evolve via descent with modification and form genera and other higher taxa, how diversification of structure occurs, how species become extinct and so on [2, p. 97-106]. He uses several imaginary examples to bring home the point that new species evolve from existing ones. "We shall best understand the probable course of natural selection by taking the case of a country undergoing some physical change,

for instance, of climate. The proportional numbers of its inhabitants would almost immediately undergo a change, and some species might become extinct…. But in the case of an island, or of a country partly surrounded by barriers, into which new and better adapted form could not freely enter, we should then have places in the economy of nature which would assuredly be better filled up, if some of the original inhabitants were in some manner modified; for had the area been open to immigration, these same places would have been seized on by intruders. In such case, every slight modification, which in the course of ages chanced to arise and which in any way favoured the individuals of any of the species, by better adapting them to their altered conditions, would tend to be preserved; and natural selection would thus have free scope for the work of improvement." [2, p. 69-70]. As one would observe none of these statements are fact-based. All are just pure imaginations. The term 'better adapted' used in the statement is a misnomer as every species is 'best adapted' to exist in its niche and perpetuate its kind. On the evolutionary scale, a bacterium may be treated as one of the most primitive and 'least developed' compared to the latecomers that are supposed to be more advanced. But yet the bacterium is more ubiquitous and 'successful' to use the evolutionary jargon, than the most developed man, if population is any indicator of success. Using such imaginary situations, Darwin describes how his theory explains the production of newer and newer organisms. The theory was formulated purely on speculations without providing any natural evidence for the explanations and statements made. According to Woese, cellular evolution is a self-limiting process. With increasing complexity, the possible ways in which the design can be further altered diminish. An end point is ultimately reached at which organization of the cell can no longer change [3]. This reality, if extended to

species, would go against the very spirit of Darwinism because it restricts and eventually stops the supposedly continuous evolution of 'newer' and 'better developed' organisms.

With every passing word Darwin reminds us in his book of the severe competition that each species is facing and it is against this backdrop he unfolds the story of the success of a species or its failure with the help of the hypothetical mechanism called natural selection. Wherever this mechanism fails or becomes inapplicable, another mechanism is introduced. Sexual selection is one such mechanism introduced to account for the evolution of certain sex-related traits. The concept assumes that there is competition between males for possession of the females. "This (sexual selection) depends, not on a struggle for existence, but on a struggle between the males for possession of the females; the result is not death to the unsuccessful competitor, but few or no offspring." [2, p. 74]. The arguments and explanations relating to spouse preference etc. have an anthropomorphic touch and imply that animals also think and feel as we humans do. First of all, in the animal world if there is female preference for any male characteristic, natural selection would have already led to the preservation of that characteristic in males. Darwin is silent about why natural selection failed in that. Natural selection created the condition of female preference and set the stage for males to fight it out! If there is competition between males for being chosen by females within a species and if sexual selection operates in nature as hypothesized by Darwin, over a period of time the male population of that species would have, through sexual selection, consisted of only the best suitors of the female choice. In that case, there would not have been any preference among females for males. Why such a stage has not yet reached although millions of generations have passed through sexual selection? Further,

Darwin had not explained how in the first place such female preference for certain male characteristic evolved at all, in spite of the fact that it is not advantageous to the species due to the restricted male choice.

It is pertinent to note that the explanations Darwin advanced were in the form of personal views rather than as scientific interpretations. This character is very much reflected in his statements and expressions. One finds to his surprise that Darwin's interpretations and conclusions are peppered with phrases like "I believe", "I think it highly probable", "I do not doubt", "I think", "I am convinced", "I can form no opinion", etc. Such phrases are a common feature of the discussion in his book. He also takes extreme liberty in making bold statements like "I may without here entering any details", "I will not here enumerate", etc. Such usages are unknown in scientific reporting. These features can be observed in many of his statements. A few of them may be cited here. "I have remarked in the first chapter but a long catalogue of facts *which cannot be here given* would be necessary to show the truth of the remark that the reproductive system is eminently susceptible to changes in the condition of life…." [2, p. 112]. But still his arguments without 'those facts' are acceptable to evolutionists. "To treat this subject at all properly, a long catalogue of dry facts should be given; but these *I shall reserve* for my future work." [2, p. 39]. It is strange that although Darwin is fully aware of the importance and inevitability of presenting the facts, he prefers not to do it. Theories not backed by data but based on speculations, personal views and assurances of producing data in the future publications can only make a mockery of science. With regard to origin of domestic animals and plants, Darwin notes: "…*I do not think* it is possible to come to any definite conclusion, whether they have descended from one or several species…. The

whole subject must, I think, remain vague; nevertheless, *I may, without here entering on any details*, state that, from geological and other considerations, *I think* it highly probable that our domestic dogs have descended from several wild species. In regard to sheep and goats I can form no opinion." [2, p. 17]. It is a strange admission. If the origin of domestic dogs can be explained through casual observations, why the same approach cannot be used for sheep and goat? "Great as the differences are between the breeds of pigeons, *I am fully convinced* that the common opinion of naturalists is correct, namely, that all have descended from the rock-pigeon (*Columbia livia*)…." [2, p. 21, emphasis added]. While discussing the distinction between variety and species, Darwin states: "But cases of great difficulty, *which I will not here enumerate*, sometimes occur in deciding whether or not to rank one form as variety of another…." [2, p. 42, emphasis added]. It is indeed baffling that Darwin's theory founded on personal beliefs and opinions has won wide acclaim and it continues to play a pivotal role in biological sciences.

Evolutionists' treatment of an organism as mere ensemble of physical structures evolved from less developed ones and waiting to get transformed into still better ones is very childish. An organism has never been thought of as an information processing system from birth to death and its every structure is dynamic in nature changing continuously in morphology and functional ability with time. We are unable to observe the minute changes taking place in the organism at short time intervals but over a period of days, months or years depending on the species the changes will become visible. For instance, a human individual is changing every instant but its rate is too small to detect immediately; the changes will become conspicuous in months or years. In view of the constant change in form and other characteristics of an organism with time,

the very concept of phenotype is a blurred one.

Conceptual integrity is also very much lacking in Darwin's discussion of the origin of biological diversity. "We are far too ignorant, in almost every case, to be enabled to assert that any part or organ is so unimportant for the welfare of a species, *that modifications in its structure could not have been slowly accumulated by means of natural selection*. But we may confidently believe that many modifications, wholly due to the laws of growth, and at first in no way advantageous to a species, have been subsequently taken advantage of by the still further modified descendants of this species." [2, p. 170, emphasis added]. There are two clear deviations in the above statement from his view of all-powerful natural selection; one is relegation of natural selection from the role of watchdog of evolution to that of a helpless bystander. The second deviation is, when runs out of explanation he invokes natural laws as well. Recognition of the existence of natural laws to guide evolution of useful modification from a useless modification is surprising indeed. Insofar as laws imply determinism, Darwin indirectly accepts that evolution cannot have been fully guided by chance. But at the same time chance (without purpose) and laws (with purpose) cannot go together. An initially useless structure heading to become a useful one in the end is a clear indication of pre-determination of the morphological, anatomical, physiological and functional aspects of the structure being evolved. What we observe in these arguments is the desperate attempt of Darwin to make his theory convincing. In fact Darwin devotes a whole chapter (chapter 5) in his book for discussing the nature of variations seen in the living world under the title 'Laws of variation'. Further, according to the theory, variations advantageous to the possessor alone will be selected. But evolution of a beneficial part or organ begins with a totally

useless structure. A variation that may later transform into a beneficial body part will be totally useless in the beginning which according to the theory should not have been selected. The theory has no explanation for this. Evolutionists are also silent about how the evolving species would have survived with underdeveloped organs like heart and reproductive organs in the beginning.

Another contradiction of his own theory can be found in the argument of economy: "The elder Geoffroy and Goethe propounded, at about the same period, their law of compensation or balancement of growth, or, as Goethe expressed it, 'in order to spend on one side, nature is forced to economise on the other side'. I think this holds true to a certain extent…. I suspect, also, that some of the cases of compensation which have been advanced, and likewise some other facts, may be merged under a more general principle, namely, that natural selection is continually trying to economise in every part of the organisation. If under changed conditions of life a structure before useful becomes less useful, any diminution, however slight, in its development, will be seized on by natural selection, for it will profit the individual not to have its nutriment wasted in building up an useless structure." [2, p.124-125]. In this context, Darwin argues that natural selection will act upon even useless structures and arrest their development as an economy measure to save on resources. If that were the case, no organ would have evolved under the scanner of natural selection for each organ during its initial stages of evolution would be invariably useless to the possessor. How and why should the unconscious, purposeless natural selection operate on the principle of economy? This is also an instance wherein he uses an argument to defend his theory in one context and just the reverse in another context.

Darwin argues that natural selection will not create a

structure in any species for the sole benefit of another species. He puts up the challenge: "If it could be proved that any part of the structure of any one species had been formed for the *exclusive good of another species*, it would annihilate my theory for such could not have been produced through natural selection." [2, p. 167, italics added]. In the next breath, he himself presents an example that would annihilate his theory. "One of the strongest instances of an animal apparently performing an action for the sole good of another, with which I am acquainted, is that of aphids voluntarily yielding their sweet excretion to ants…." [2, p. 175]. But Darwin treats this case not as a challenge to his theory. He remarks: "But as the excretion is extremely viscid, it is probably a convenience to the aphids to have it removed…." [2, p. 175]. How strange is his argument to justify a counterargument!

Invalid Assumptions

The strength of a theory lies primarily on the validity of its assumptions. The question whether the assumptions of the evolutionary theory are sound can be unambiguously answered in the negative based on hard facts. Two important assumptions of the evolutionary theory are: a) Competition exists between species and b) hereditable changes (mutations) occur in the organisms by random chance processes.

Competition

The existence of competition between species in nature is a distortion of facts. What we find is cooperation and harmony among species in an ecosystem. In fact, all the species in an ecosystem are required to maintain it. Withdrawal of a species makes the system unsustainable. Struggle for existence due to competition between species is the key factor required to sustain Darwin's model of biological evolution. For many years, competition was considered as an important reason for major

faunal turnovers. It was hypothesized that wily little mammals outcompeted the dinosaurs (or drove them to extinction) by eating the eggs out of the dino nests. Dinosaurs were supposed to have earlier outcompeted the therapsids (mammal-like reptiles). Following the rise of the Isthmus of Panama, invading placental mammals drove the native South American population of Marsupial mammals to extinction. Do we have sufficient evidence to support these hypotheses? As with many other hypotheses, it is simply an interpretation of an observed pattern i.e., we have dinos and small mammals below the K/T boundary, but only mammals above the boundary. We know that the dinos were extinct. We know that the mammals survived and prospered. We *interpret* that the survivor is somehow better than the group that went extinct. In all of these cases there was no actual evidence of direct competition, and proponents of competitive displacement were hard put to offer convincing arguments, which clearly showed how the survivors were adaptively superior [4]. Do conditions leading to competition of such magnitude resulting in the survival of the 'better fit' prevail for a long time anywhere on this planet for natural selection to operate? Active competition in contemporary assemblages has often been inferred from the degree of niche overlap displayed, and invoked to explain observed patterns of distribution, abundance and behaviour. Studies conducted with lotic fish communities at the University of Southampton, U.K., showed little unequivocal evidence for the occurrence of interspecific competition because there exists no definitive relationship between similarity of resources use and degree of competition [5]. Peter Kropotkin was a Russian revolutionary anarchist and a critic of Darwinism. His views about evolution revolved around cooperation and not competition. As a naturalist studying the geology and zoology of eastern Russia, his observation

of the animal world taught him that living beings coped with the harsh Siberian environment primarily through cooperative behaviour. He categorically denied that evolution resulted from struggle for life. Kropotkin could not accept Thomas Huxley's (a staunch believer and protagonist of Darwinism) 'gladiatorial' Darwinism as valid: "They conceive of the animal world as a world of perpetual struggle among half-starved individuals, thirsting for one another's blood." Stephen Jay Gould devotes a full chapter in his book *Bully for Brontosarus* presenting Kropotkin's views on biological evolution based on cooperation in sharp contrast with Darwinism based on competition [6]. Kropotkin's idea of natural co-operation and Darwin's idea of fierce competition are diametrically opposite views but both trying to explain the same phenomenon. Although it may sound ironical, theoretically both these concepts may be applied to biological evolution. But their products will be different. While Darwin's concept would strive to create species with highest competitive ability, Kropotkin's mechanism would produce populations with wide-ranging abilities capable of cooperative existence. In other words, Darwinian species will be inimical and hostile to one another while Kropotkin's species will be friendly and cordial in their existence. Evidently Darwinian evolution is destructive and Kropotkin's evolution constructive leading to the existence of mutually helping species. When the products of these two evolutionary pathways are contrasted against the real situation, we find that Kropotkin's view would explain better the natural reality. Further, a system that is governed by cooperation among its component species is viable and sustainable in the long run as opposed to the one driven by destructive forces of competition and hatred.

Coexistence of species is a natural reality implying that competition is of minor importance and rare. A classical example

is 'plankton paradox'. Application of the principle of competitive exclusion, i.e., the species with greater competitive ability will crowd out the less competitive one, seems to contradict with some of the well known facts (referred to as paradoxes). The plankton organisms use the same resources. All plankton algae use solar energy and minerals dissolved in the water. There are not so many variations in mineral components to account for the large variability in plankton algae species [7]. In other words diverse species of algae coexist with identical resource requirement without competition and mutual exclusion. Darwinists seem to consider competition as the natural tendency but at the same time argue for diversification of characters through competition. Diversification of character cannot enhance or promote competition but only coexistence. It is a divine mechanism to reduce competition with other species. It can be thought of as a natural strategy towards maximizing species diversity in a given ecosystem through bifurcation or alteration of species preferences for resources.

Random chance mutations

It is now well established that spontaneous mutation is extremely rare and even if it occurs, it is mostly deleterious to the organism. Nevertheless, the evolutionary theory leans heavily on the occurrence of random mutations. Spontaneous mutation rates seem to be determined by evolutionary balances between the deleterious consequences of many mutations and the additional energy and time required to further reduce mutation rates. Bacteria, Archae, and Eukaryotic microbes produce about one mutation per 300 chromosome replications. However it is important to note that there are certain "hot spots" or "cold spots" for spontaneous mutations. (A "hot spot" is a site that has a higher rate of mutations than predicted from a normal distribution, and a "cold spot" is a site with a lower rate of mutations than predicted from a normal

distribution.). Higher eukaryotes have the same rate of spontaneous mutation, so that rates per sexual generation are about one mutation per gamete (close to the maximum compatible with life) [8]. Although it is a much generalized viewpoint, it gives some idea about the occurrence of mutation. The overall human mutation rate is estimated to be about 1 x 10e-6 per gene per generation [9]. This rate is similar to those measured in various prokaryotic and eukaryotic microorganisms. We can use the estimated human mutation rate to determine its impact on the likelihood of changes occurring in each generation: a rate of 1 x 10e-6 mutations/gene x 5 x 10e4 genes/haploid genome = 5 x 10e-2 mutations per gamete (=5/100 or 1/20). 1/20 x 2 gametes per zygote = 1/10 chance that each zygote carries a new mutation somewhere in the genome. However, most mutations are recessive and thus will not be expressed in the heterozygous condition [9].

The noted scientists Francis Crick, L. M. Murkhin, and Carl Sagan have estimated that the difficulty of evolving a man by chance processes alone is 1 in $10^{2,000,000,000}$ which according to Borel's law is no chance at all [10]. Orthodox Darwinists however believe that despite the tremendous odds against evolution, the large amount of time involved (supposedly billions of years, an assumption that itself is scientifically questionable) somehow makes the impossible possible. Unfortunately, the argument that time alone solves the difficulty of probability considerations, is not only intellectually uncomfortable but also is preposterous. For example, Borel's "Single Law of Chance" declares that when the odds are beyond 10^{200} (on a cosmic scale) an event will never occur, no matter how much time is involved [11].

The problem with mutation is further complicated by the lack of understanding of the gene itself. With the realization of the role of junk DNA (noncoding DNA or ncDNA) in gene regulation,

the recognition of coding DNA as the sole carrier of genetic information has now become suspect. In other words, the widely held particulate gene concept is under scanner. Although biologists use the term "gene" lavishly and explain many aspects of evolution using this concept, the hard fact is that they have not been able to define what the gene is. Writing in *In Context*, Craig Holdrege observes: "It has become less and less clear what a gene actually is and does. And although the deterministic gene is still the gene that lives in the minds of many students, lay people, and - at least as a desire - in the minds of many biologists, *the findings of late twentieth century genetics show one thing clearly: the simple deterministic gene, the foundational "atom" of biology is dead.* There is no clear-cut hereditary mechanism - no definite sequence of nitrogenous bases in a segment of a DNA molecule that determines the make-up and structure of proteins, which in turn determine a definite feature of an organism" [12]. A former MacArthur fellow and a professor of history and philosophy of science at MIT, Evelyn Fox Keller makes the case for a radically new thinking about the nature of heredity in her book *The Century of the Gene*. In her articulate and insightful history of genetics and molecular biology, she suggests that most of our common assumptions about genes are either too simplistic or simply incorrect. It turns out, for example, that a single functioning gene may be split and found in several locations on a chromosome, and it is rare that a gene can be determined to have caused any particular trait, characteristic or behavior [13]. A more detailed discussion is given elsewhere [14].

Molecular characterization of gene necessitated a more detailed explanation of the evolution of the genes. The particulate gene, though undefined and unclear, is supposed to be having a complicated material structure with several components. Evolution

of those components also has to be explained. Nuclear genes of eukaryotes contain multiple regions called introns that are removed from the pre-mRNA. The remaining regions that are translated are called exons, and the process of intron removal and exon fusion is called splicing. No evidence of these introns has been found in prokaryotes. The evolution of eukaryote introns is hotly debated; particularly at what point did they appear in the tree of life and from where, and what was the subsequent pattern of their loss and gain? Belshaw and Bensasson discuss the problems faced in phylogenetic reconstruction, mechanisms involved in the gain and loss of introns, its diversity and selection, etc. [15]. The new knowledge that the gene is an indefinable entity, and noncoding genes also play important roles in the regulation of gene function has impacted evolutionary biology more than any other field. Discussing the problems encountered in evolutionary biology, Nevo observes that there are several questions like how much of coding and noncoding genome diversity (the latter comprising more than 95% in eukaryote) affects the twin evolutionary processes of adaptation and speciation, how much of this diversity in coding and particularly in noncoding genomes contributes to regulation and differential fitness of organisms and is subjected to natural selection, what proportion of genic and nongenic diversity is maintained in selection, and how much of the diversity in ncDNA is adaptive and regulates gene expression, transcription, translation, recombination, and repair, to be resolved. The adaptive nature of noncoding genome is one of the most intriguing questions in evolutionary genetics [16]. If ncDNA is responsible for the regulation of coding DNA, it becomes all the more questionable as to how these two portions of the genome undergo simultaneous mutually compatible alterations by the supposed random spontaneous mutation events. The independent existence of coding

and noncoding genes puts the current versions of evolutionary stories in the dock. Prof. J.A. Shapiro, a bacterial geneticist at the University of Chicago, U.S.A. remarks: "Our current knowledge of genetic change is fundamentally at variance with neo-Darwinist postulates. We progressed from the Constant Genome, subject only to random, localized changes at a more or less constant mutation rate, to the Fluid Genome, subject to episodic, massive and non-random reorganizations capable of producing new functional architectures….Nonetheless, neo-Darwinists writers like Dawkins continue to ignore to trivialize the new knowledge and insist on gradualism as the only path for evolutionary change." He further adds: "…the debate about evolution continues to assume the quality of an abstract and philosophical "dialogue of the deaf" between Creationists and Darwinists. Although our knowledge of the molecular details of biological organization is undergoing a revolutionary expansion, open-minded discussion of the impact of these discoveries are all too rare. The possibility of a non-Darwinian scientific theory of evolution is virtually never considered". He is pioneering a non-Darwinian scientific theory. "Although such purists as Dennett and Dawkins repeatedly assert that the scientific issues surrounding evolution are basically solved by conventional neo-Darwinism, the ongoing public fascination reveals a deeper wisdom. There are far more unresolved questions than answers about evolutionary process, and contemporary science continues to provide us with new conceptual possibilities." [17].

"As we elucidate the complex molecular machinery that controls gene expression, our ignorance of its role in evolution is becoming increasingly alarming. In most cases, we know little about the way in which gene expression is involved in how organisms adapt to new environments or otherwise evolve. It has long been

hypothesized that adaptation over short evolutionary time may often proceed by modifications in the regulation and interaction of genes rather than in the protein gene-products themselves." [18]. Proteins interact in complex networks, and so small differences in the abundance of one protein may have profound consequences. "At the DNA level there may be many different mutations that affect gene-expression levels, but very few potentially beneficial mutations that directly affect protein function. Nonetheless, for convenience, most evolutionary studies have focused on protein evolution, leaving gene expression as one of the great unknowns in evolutionary biology." [19].

Stephen C. Meyer, Director of Discovery Institute's Center for Science & Culture, U.S.A., in an excellent comprehensive review of the literature discusses the problems and difficulties from an altogether different angle, i.e., evolution of novel genetic information through random mutations [20]. His analysis of the issue is briefly as follows. A typical gene contains over one thousand precisely arranged bases. For any specific arrangement of four nucleotide bases of length n, there is a corresponding number of possible arrangements of bases, 4^n. For any protein, there are 20^n possible arrangements of protein-forming amino acids. A gene 999 bases in length represents one of 4^{999} possible nucleotide sequences; a protein of 333 amino acids is one of 20^{333} possibilities. Since the 1960s, biologists have thought functional proteins to be rare among the set of possible amino acid sequences. The analogy of human language has been used to illustrate why this should be the case. Denton showed that meaningful words and sentences among the set of possible combinations of English letters became increasingly rare as sequence length grew [21]. The ratio of meaningful 12-letter words to 12-letter sequences is $1/10^{14}$, the ratio of 100-letter sentences

to possible 100-letter strings is $1/10^{100}$. Further, the most meaningful sentences were *highly isolated* from one another in the space of possible combinations, so that random substitutions of letters will, after a very few changes, inevitably degrade meaning. Apart from a few closely clustered sentences accessible by random substitution, the overwhelming majority of meaningful sentences lie, probabilistically speaking, beyond the reach of random search. Denton and others argue that similar constraints apply to genes and proteins [21]. The presumed ability of mutation and selection to generate information in the form of novel genes and proteins has been questioned by many scientists and mathematicians. Such skepticism often derives from consideration of the extreme improbability (and specificity) of functional genes and proteins. Axe performed site directed mutagenesis experiments on a 150-residue protein-folding domain within a B-lactamase enzyme. On the basis of these experiments, he estimated the ratio of proteins of typical size (150 residues) that perform a specified function via any folded structure to the whole set of possible amino acids sequences of that size, as 1 to 10^{77}. Thus, the probability of finding a functional protein among the possible amino acid sequences corresponding to a 150-residue protein is similarly 1 in 10^{77} [22].

These findings do question the possibility of evolution of organisms requiring new genetic information. The Cambrian explosion is a case in point. The "Cambrian explosion" which is also called "biology's big bang" refers to the geologically sudden appearance of many new animal body plans about 530 million years ago. At this time, at least nineteen, and perhaps as many as thirty-five phyla of forty total made their first appearance on earth within a narrow five- to ten-million-year window of geologic time. Many new subphyla, between 32 and 48 of 56 total [23] and classes of animals also arose at this time with their members

displaying significant morphological innovations. The Cambrian explosion thus marked a major episode of morphogenesis in which many new and diverse organismal forms arose in a geologically short period of time [20]. New Cambrian animals would require proteins much longer than 100 residues to perform many necessary specialized functions [20]. Cambrian animals would have required complex proteins such as lysyl oxidase in order to support their stout body structures [24]. Lysyl oxidase molecules in extant organisms comprise over 400 amino acids. These molecules are both highly complex (non-repetitive) and functionally specified. Reasonable extrapolation from mutagenesis experiments done on shorter protein molecules suggests that the probability of producing functionally sequenced proteins of this length at random is so small as to make appeals to chance absurd, even granting the duration of the entire universe. DNA mutation rates are far too low to generate the novel genes and proteins necessary to building the Cambrian animals, given the most probable duration of the explosion as determined by fossil studies [25]. According to Ohno (1996) even a mutation rate of 10^{-9} per base pair per year results in only a 1% change in the sequence of a given section of DNA in 10 million years. Thus, mutational divergence of preexisting genes cannot explain the origin of the Cambrian forms in that time [24].

In his book, *Mathematics of Evolution*, Fred Hoyle does calculations of the core claims of neo-Darwinism – evolution works by the selection of rare advantageous mutations [26]. According to him, the protein histone-4 could never be produced in small steps because histone-4 has a chain of 102 amino acids and the structure is extremely conserved in all eukaryote species. Bovine histone-4 differs in only 2 positions with peas. This means extreme functional constraints must exist. Histones are necessary for chromosome condensation during cell division. The traditional

neo-Darwinian step-by-step method must fail as it implies 100 non-functional steps. The alternative, that is a jump of 100 mutations of exactly the right kind is highly unlikely [27]. Histone H4 and H3 lack functional intermediates in eukaryotes. Histone H3 is one of the slowest 'evolving' proteins known (1,000 times more slowly than the apolipoproteins). That would mean about 1-2 (non-synonymous) substitutions per nucleotide per trillion (=1,000,000,000,000 or 10^{12}) years! That is, the time for Histone H3 and H4 to substitute one amino acid is longer than the age of the Earth, our solar system and the universe [28]. The concept of chance is weird because to the general public it implies unpredictability and lawlessness; but the truth is even the so-called chance is mathematically describable. But it is wrongly perceived as uncontrolled haphazard phenomenon.

Failure of Predictions

Biological evolution is supposed to require geologic time scale to manifest the results. Therefore it is argued for practical reasons that the only alternative to test the validity of the theory is through evaluation of the success of its predictions. Darwin's theory predicts a number of things which can be verified. Some of the predictions are discussed here for a sample. A detailed discussion can be found elsewhere [1].

Transitional forms

Despite the scientific inadequacies of the theory, the only possible natural evidence that would have swayed in its favour is the fossil record showing the transitional forms predicted by the theory. Darwin stated: "…the number of intermediate and transitional links between all living and extinct species, must have been inconceivably great. But assuredly, if this theory be true, such have lived upon this earth." [2, p. 231]. "Lastly, looking not to any one time, but to all time, if my theory be true, numberless intermediate

varieties, linking most closely all the species of the same group together, must assuredly have existed; but the very process of natural selection constantly tends, as has been so often remarked, to exterminate the parent forms and the intermediate links. Consequently evidence of their former existence could be found only amongst fossil remains. . ." [2, p. 149-150]. But the fossil record did not live up to Darwin's expectations. It is barren for transitional forms. Darwin's reaction to the absence of intermediate forms is: "Geology assuredly does not reveal any such finely graduated organic chain; and this, perhaps, is the most obvious and gravest objection which can be urged against my theory. The explanation lies, as I believe, in the extreme imperfection of the geological record." [2, p. 230]. His remark about the imperfection of the fossil record to save his face is, to say the least, a blatant distortion of facts and a shame to the whole scientific community. *It is Darwin's theory and not Nature that necessitated the intermediate forms and it is Darwin who predicted their presence in the geological record.*

Whatever argument one may advance, the geological record is against Darwin's theory. It shows that no intermediate forms envisaged by the evolutionary theory ever lived on this planet. In other words, Darwin's theory of evolution is not correct. The lack of transitional forms in the fossil record thus prompted Darwin to state: "He who rejects these views on the nature of the geological record will rightly reject my whole theory. For he may ask in vain where are the numberless transitional links which must formerly have connected the closely allied or representative species, found in the several stages of the same great formation." [2, p. 279-280]. To call nature's archive of biological history as imperfect for the simple reason that its does not agree with one's idea is something unheard of and unthinkable in science.

In spite of the absence of transitional forms (missing links),

the idea of gradualism was not questioned for over a century until Niles Eldredge and Stephen Jay Gould proposed the theory of punctuated equilibrium in 1972 to explain evolution in the light of fossil evidence [29]. Yet the evolutionists were neither prepared to reject Darwin's idea or to modify it to suit the natural evidence; instead they continued to hang on to it by accepting Darwin's explanation of imperfection of the geological record. If natural truth goes against the predictions of a theory, it is preposterous to defend it by perfunctory arguments. It is a fact that Darwin knew there were no organic gradations in the fossil record even before he proposed the theory. But he ignored that and chose to cover it up by declaring the natural archive of biological history as incomplete! No evolutionist would have doubted the completeness of the fossil record if Darwin's theory had not predicted transitional forms. In no other field of science can we find such unethical move to deliberately misinterpret natural formation in defense of a theory. David Raup, the curator of the Chicago Field Museum of Natural History commented in 1979 on the situation of the missing link thus: "Well, we are now about 120 years after Darwin, and knowledge of the fossil record has been greatly expanded. Ironically, we have even fewer examples of evolutionary transition than we had in Darwin's time. By this I mean that some of the classic cases of Darwinian change in the fossil record, such as the evolution of the horse in North America, have had to be discarded or modified as the result of more detailed information." [30]. Refutation of geological record calling it incomplete and imperfect to defend a theory is something unsurpassed in the annals of modern science. There are many theories in physical and chemical sciences that provide predictions to enable us to verify their veracity. But in the event of failure of a prediction, no one would have considered the natural evidence wrong and the theory correct!

If evolution takes place in steps, intermediate forms of emerging species with new organs or body parts in various stages of development will have to be present at all times – past, present and future. But we do not find now intermediate forms of organisms or incomplete body parts in any extant organism. Among the two million or so known species, not one of them has been identified by taxonomists as intermediate form; all of them have been described as perfect species clearly indicating that transitional forms as predicted by Darwin's theory do not occur in nature. The absence of intermediate forms in the existing biodiversity, besides the lack of transitional forms in the fossil record, questions the validity of Darwin's theory of origin of species.

Darwin also contradicted his own argument of gradualism: "Some variations useful to him (man) have probably arisen suddenly, or by one step; many botanists, for instance, believe that the fullers' teasel, with its hooks…may have suddenly arisen in a seedling." [2, p. 26-27]. If gradualism is not required for evolution of some characteristics, what is the justification in arguing for its necessity for others? Taking the cue from Darwin, evolutionists are also now trying to argue that evolution can take place without gradualism. In an article published in *Nature Reviews Genetics* in 2006, gradualism has been questioned. "How does a trait evolve from A to B? Does it take many small steps, or one big one, or does it take one largish step followed by a few small ones? These questions are difficult to answer, mainly because adaptive events are only observed after they have taken place. An experimental evolution study in Pseudomonas spp. has captured the first adaptive event as it happens – the fitness advantage of such mutations is high, and so that first step to adaptation is more of a jump. The view that evolution is a gradual process has been challenged by evidence that large-effect

mutations can also underlie adaptive changes. But developing a general rule of adaptation is not easy, especially because beneficial mutations occur rarely. Experimental evolution presents a unique advantage: many beneficial mutations can be recovered, and their adaptive fitness can be compared to that of the ancestral population." [31]. All these are overstretched inflated interpretations and claims because large-scale mutations are extremely deleterious to organisms. By arguing for both gradualism and non-gradualism, evolutionists are not only making themselves a laughing stock in the scientific community but also evolutionary biology.

Natural selection

As in the case of gradualism, evolutionists have also started telling us natural selection is not required for evolution of new species! "Species need not sit around waiting for natural selection to shape them. According to a new study, a creature's personality can also be an important evolutionary driving force – one that may give the species some control over its own destiny. Famed evolutionary theorist Ernst Mayr championed the idea that behavior could guide evolution; he reasoned that an animal's behavior determines how it interacts with its environment. Duke University evolutionary ecologist Renee Duckworth saw a good opportunity to test Mayr's theory while studying the western bluebird, *Sialia mexicana*, in Montana…Duckworth found that more aggressive birds favored open meadows, which are rife with potential nesting sites. Less aggressive birds, who didn't compete as well for these prime locations, wound up settling in closed forest areas with fewer nesting sites. The habitats favor different foraging strategies. Birds must hover and hop to get food in open areas, while forest-dwelling birds can simply stay in trees to find tasty insects and berries. Accordingly, Duckworth found that birds in

open areas with longer tails and legs – traits that enabled them to forage more effectively – had more offspring survive to independence than did those with shorter tails and legs. Neither trait seemed to matter for birds nesting in forest areas. Over time, such a difference in selection pressure could split a species, says Duckworth, who reported her findings in *Proceedings of the Royal Society B*. That scenario is unlikely to happen with the bluebirds, however. Duckworth says that forest fires prevent either of the habitats from being stable enough to keep the two personality types genetically separated for long – a requirement for new species to arise." [32]. So that is it. Natural selection need not be the force that drives evolution always. Another counter argument is born in evolutionary biology! The idea has been well endorsed by another evolutionist also. "The idea that a behavioral trait can influence a species' evolution is "very intuitive," says evolutionary physiologist Raymond Huey of the University of Washington in Seattle. He believes the study will provide evolutionary researchers with a new way of looking at the forces that drive evolution. "There's a debate going back to Darwin about what drives evolutionary change," Huey says. The study, he believes, is "one that will resonate." [32].

The report of the restricted role of natural selection in evolution by Weinreich and his colleagues from Harvard University is another frontal attack on the efficiency of the much celebrated mechanism. They demonstrated the haplessness of natural selection, the driving force behind Darwinism. "Five point mutations in a particular ß-lactamase allele jointly increase bacterial resistance to a clinically important antibiotic by a factor of ~100,000. In principle, evolution to this high-resistance ß-lactamase might follow any of the 120 mutational trajectories linking these alleles. However, we demonstrate that 102 trajectories are inaccessible to Darwinian

selection and that many of the remaining trajectories have negligible probabilities of realization…. we conclude that much protein evolution will be similarly constrained…" [33].

That proves many things besides meaninglessness of the theory. It is only when non-evolutionists question the foundations of the theory the roof is raised by the evolutionists. Now they themselves find out both gradualism and natural selection are mere Darwin's ideas and not required for evolution. The theory is founded on gradualism and natural selection. All the while evolutionists have been not only supporting these tenets but have been claiming that they have proved also. Now they say these are not required; even without them evolution will go on! With the two pillars of Darwinism (gradualism and natural selection) gone, nothing is left of Darwinism now. The evolutionary theory is virtually hanging in mid air waiting for its imminent fall.

Extinction of older species

"The extinction of old forms is the almost inevitable consequence of the production of new forms." [2, p. 280]. The existence of millions of older species on the earth is the solid evidence against this prediction. Extinction of old species had not occurred as a result of the evolution of newer species from them. Do we have any evidence to show that a species would become extinct because it is 'inferior' to others and that the number of extinct species is about the same number of the new forms? If that were the case only very few species would have left on the earth at any given point of time. More recently evolved species should have relatively better survival fitness. "On the theory of natural selection the extinction of old forms and the production of new and improved forms are intimately connected together. The old notion of all the inhabitants of the earth having been swept away at successive periods by catastrophes, is very generally given

up….On the contrary, we have every reason to believe, from the tertiary formations, that species and groups of species gradually disappear, one after another, first from one spot, then from another, and finally from the world." [2, p. 259-260]. This statement holds that older species should become extinct earlier to newer species. Several examples of very old organisms (e.g., bacteria, as already mentioned) that live even today and several younger species (e.g., dinosaur) having gone extinct can be cited against this.

Darwin's Dilemma

Although evolutionists try to hammer out explanations for every biological phenomenon, there are many characters which defy evolutionary explanations. Sex has been considered as the "biggest unsolved problem in evolution". [34]. Because of the low spontaneous mutation rate, sexual organisms require a multiple origin of novelty, many individuals varying simultaneously [35]. On a morphological scale, the male and female of many bisexual species (e.g., human species) are far more different than species of two different taxonomic orders. Evolutionists draw blank when it comes to explaining simultaneous evolution of two substantially different organic forms of the same species. There is no consensus among scientists either regarding the relevance of sexual reproduction in the evolutionary context. "There have been attempts to change the emphasis from variation to selection in order to explain the reason for sex, known as the Red Queen Hypothesis…it supposes selection pressure to be far greater than commonly thought….Biology textbooks continually reassert a long-held view that sex promotes the spreading of the variability even though the mutation rate is too low to support this hypothesis."[36]. Instincts exhibited by animals defy any explanation based on natural selection of gradually accumulated variations.

There are many other cases also which Darwin found

difficult to explain. "One of the gravest is that of neuter insects ….The electric organs of fishes…it is impossible to conceive by what steps these wondrous organs have been produced." [2, p. 160].

Sterility is another phenomenon that cannot be explained by evolutionary theory. If natural selection operates, sterility will never evolve because sterility hinders the perpetuation of species. But it "evolved". It varies from zero (i.e., 100% fertility) to complete sterility. In the same species (e.g., man) both fertile individuals and sterile individuals are also found! Similarly we find dimorphs and polymorphs existing in the same species. How do these contrasting characteristics evolve in the same species under the watchful eyes of natural selection?

A major defect of Darwin's theory is that it is not organism-based but character-based in the sense that an organism is viewed as an ensemble of many structures and characters and hence it leaves the most important question as to how the organism physiologically, anatomically and functionally cope with an emerging structure unaddressed. The theory implies that an organism evolved in parts not wholly in one go. The organism is treated as a system with adds-on facility. In reality an organism is a biological factory incessantly working from its inception till its death. Every moment of its life is programmed. The theory does not explain the evolution of a genetic program needed to develop an organism from scratch and to sustain it during the entire lifetime. Instead it only addresses the question of how a character or structure would evolve at a time. It does not even broach the possibility of evolution of more than one structure at a time which also is equally probable. In that case the issues to be addressed and explained by the theory are several fold, more complex and vital than evolution of a single structure at any given point of time. Evidently the theory flops

miserably at that.

Darwin's Legacy

Ignoring Darwin's own admission of the absence of gradualism in the fossil record, one group of his followers went a step further declaring the (perfect) fossil species as the missing links (imperfect intermediate stages). They started 'establishing' the transitional forms for the evolution of different species. Horse evolution and human evolution are just two examples of this.

Paleontologist Kathleen Hunt outlined horse evolution based on paleontologist O.C. Marsh's description of horse fossils published in the 1870's and T.H. Huxley, a staunch Darwinist, popularized that story as a striking example of evolution [37, 38]. "Here, one could see the fossil species "Eohippus" transformed into an almost totally different-looking (and very familiar) descendent, *Equus*, through a series of clear intermediates… not only as evidence for evolution per se, but also specifically as a model of *gradual*, *straight-line* evolution, with *Equus* being the "goal" of equine evolution. This story of the horse family was soon included in all biology textbooks. As new fossils were discovered, though, it became clear that the old model of horse evolution was a serious oversimplification. The ancestors of the modern horse *were* roughly what that series showed, and *were* clear evidence that evolution had occurred. But it was misleading to portray horse evolution in that smooth straight line, for two reasons." In their frenzy to propagate Darwinism as valid, the evolutionists make so many 'mistakes'. In this statement itself, the use of the term 'goal' is not correct because there is no goal in evolution. Secondly *gradual evolution* is misconstrued as the fossil sequence of well-defined species. What Darwin told was about the fine gradations that will not qualify the possessor to be placed as a separate species. Such transitional forms do not exist in fossil record and that is why

Darwin called the natural archive of life imperfect. Unable to face the challenge thrown by the PE, evolutionists maintain that *the full-fledged fossil species are intermediate stages* of horse evolution. The stand taken by them is thus against both Darwinism and PE. The fossil species of *Hyracotherium, Orohippus*, *Epihippus*, *Duchesnehippus*, *Mesohippus*, *Miohippus*, etc., are like *Equus* – fully developed organisms. The controversy over the nature of the fossils, i.e., whether they are intermediate forms or full-fledged species, was deliberately created by evolutionists for the survival of the theory. Darwin appears to be more honest than his followers in admitting the fact of absence of transitional forms. All these arguments literally expose the hollowness of the evolutionists' claim that the theory is a scientifically proven fact.

The brief description of horse evolution given below shows how evolutionists read the fossil remains so 'clearly' and 'accurately'. "Horses once browsed soft leafy bushes, when they first evolved around 60 Ma. But the Earth's climate cooled, and woodland gave way to open grassland with scattered trees (savanna, prairie, steppe, veld, in different languages). Now some horses began to graze in open country, and that changed everything. The grasses responded to grazing by evolving little silica pieces in their leaves (phytoliths) that were essentially jagged little grains of sand. Over time they wore away the dentine of the horse teeth. Once their teeth wore down, they could no longer eat. So the horses with more enamel and longer teeth survived better, and this coevolution of phytoliths and horse teeth, continued for millions of years, drastically altering horse morphology as they continued this "arms race" against the grasses. As the horses evolved larger, longer teeth with more enamel, they had to have bigger jaws to place the teeth in, and larger muscles for chewing. The horse face grew longer and stronger. Also the horses out in

the plain could not hide easily, so the taller, faster ones survived and reproduced better than the shorter slower ones. The "evolution of the horse" involved a many million year increase in size, in running ability, in chewing capacity, that has become famous." [39]. That is certainly a better picture of what had happened millions of years ago than an eye witness' account. What the evolutionists say is that it is the grass species existed millions of years ago that designed the biological system of the horse. The grass species also could increase its silica content. The curator of the Chicago Field Museum of Natural History David Raup's observation about horse evolution is very relevant here: "…some of the classic cases of Darwinian change in the fossil record, such as the evolution of the horse in North America, have had to be discarded or modified as the result of more detailed information." [40].

A similar story is told about human evolution from chimpanzee, the supposed nearest animal ancestor. The order of evolution suggested for the species in genus *Homo* is: *Homo erectus*, *Homo sapiens archaic* and Neanderthal Man, then Cro-Magnon Man and finally modern man. But all these claims and deductions are refuted by scientists themselves [1]. Although we now know that chimp does not exhibit a single phenotypic similarity with humans despite 98.5% genetic similarity, there is no sign of giving up the argument of their evolutionary relationship. Efforts to discover the missing link still go on. The story will not be complete without the mention of the 'living missing link'. With the advancement of the "lower human" picture of dark-skinned people, some proponents of evolutionary theory actually sought out what they believed to be *living* transitional forms between man and ape. Ota Benga a black pygmy was captured like an animal in 1904, caged and brought to the United States where he was displayed in the Bronx Zoo in New York under the label "ancient

ancestors of man" along with a few chimpanzees, a gorilla named Dinah, and an orang-utan called Dohung. This horrific story is one of the lesser of the evils brought about by Darwinism-influenced thought. Ota had a wife and two children. Unable to bear the cruelty of this treatment Ota eventually committed suicide [41]. On March 20 of 1916 at the age of 32, he built a ceremonial fire, chipped off the caps on his teeth, performed a final tribal dance, and shot himself with a stolen pistol. The death certificate listed his name as "Otto Bingo." He was buried in an unmarked grave, records show, in the black section of the Old City Cemetery, near his benefactor, Gregory Hayes [42].

Another group of evolutionists instead of making wild goose chase for missing links opted a different route – to prove Darwin's view of incomplete geological record correct. The plight of this group is much more pathetic than the other because this group is battling against Nature to prove her record wrong! Their attempts to prove the incompleteness of the fossils have also predictably ended up in failure. Several discoveries and analyses suggest that these morphological gaps may not be merely an artifact of incomplete sampling of the fossil record. Meyer cites a number of studies on this issue [20, 43, 44, 45, 46] suggesting that the fossil record is at least approximately reliable [47]. Very clearly, Darwinists are facing failure after failure in their effort to transform Darwin's idea into a scientific theory. This is not unexpected because their agenda is primarily directed towards proving the non-existence of God. The theory of chance evolution is only an instrument to facilitate achieving that condemnable objective. One can state with certainty that they will never succeed in their attempt and will only face more ignominious and humiliating defeats in future. The reason is simple – they are trying to disprove the Absolute Truth – God who created them! It is the extreme limit of

human insubordination to his Master – the handiwork of Satan. Verily, Darwin was right to describe his theory as "the devil's gospel" [48].

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4. DESCENT WITH MODIFICATION-DARWIN'S MOONSHINE

Darwin is conspicuously silent all through his book *The Origin of Species* about the definitions of "life" and "species". So glaring are these omissions that even a casual reader will spot them without fail. A clear understanding of the phenomenon of life and its origin is as important as the definition of species, the unit of biological evolution, as they form the basic foundation of his work. However, without even broaching the phenomenon of life Darwin proposes a theory to explain the origin of biodiversity (forms of life) on this planet. It is surprising how one can authoritatively speak about origin of species without knowing what life is. He also admits his inability to define species in his book.

a) "… I look at the term species, as one *arbitrarily given for the sake of convenience* to a set of individuals closely resembling each other, and that it does not essentially differ from the term variety, which is given to less distinct and more fluctuating forms. The term variety, again, in comparison with mere individual differences, is also applied arbitrarily, and for mere convenience sake." [1, p. 46; emphasis added].

b) "No one definition has as yet satisfied all naturalists; yet every naturalist knows *vaguely* what he means when he speaks of a species." [1, p. 39; emphasis added].

c) "Certainly *no clear line of demarcation has as yet been drawn between species and sub-species* that is, the form which in the opinion of some naturalists come very near to, but do not quite arrive at the rank of species; species also is a vague form, or again, between sub-species and well marked varieties, or between lesser varieties and individual differences." [1, p. 45; emphasis added]. *These statements are most discomforting as Darwin*

himself does not know what he is talking about when he says 'species'.

Lack of a clear understanding of both life and species would certainly affect the quality of thought and analysis of observations. One should have sufficient knowledge of these two phenomena before any attempt is made to unravel the mystery of origin of species. One can expect only ambiguities and misconceptions on the way if an attempt is made to explain the origin of species without knowing what life is and whatever theory emerges from such an exercise, it will also suffer from the same deficiencies. Many of the limitations and anomalies of Darwin's theory would have been due to this.

Species Problem

'Species' is an undefined concept. A detailed discussion of species may be found elsewhere [2]. Darwin's statement that individuals of a species vary ever so slightly from each other is not in keeping with the reality. Sexual dimorphs (e.g., male and female members of human species), castes observed in certain insects (e.g., queen, drone, worker castes in honey bee), to cite but a few, are totally different individuals that together constitute a species. Further, intraspecific variability in every trait (morphological, physiological, or mental) among human individuals is so large that each individual appears to qualify as a species. Thus when one discusses species, he has to consider all the variability present in that species. Unfortunately, Darwin did not address the phenomenon of species holistically. For instance, while discussing the evolution of an organism, he did not address how the different sexes or castes in that species originated simultaneously. And a theory that has no convincing explanation for the simultaneous origin of different phenotypes in the same species does not merit further consideration.

The species concept was originally used to classify the biodiversity. Karl von Linne, a Swedish botanist and medical doctor known to scientific world as Carolus Linnaeus, published the most influential book in taxonomy *Systema Naturae* in 1735 in which he outlined a scheme for classifying organisms based on morphological and anatomical similarities. The order of hierarchy in Linnaeus classification is: Kingdom-Phylum-Class-Order-Family-Genus-Species [3]. There is no reason why organisms cannot be described in terms of characteristics other than the visual ones. If the criteria are changed, the placement of species in the classification scheme will also change. Nevertheless, the concept is certainly advantageous and essential to describe and understand diverse organisms.

The problem of defining 'species' has been recognized since Linnean time. The term 'species' means different things to different people and it will continue to be so in future also as there is no indication of a unified concept in sight. This leads to a very complicated situation in the field of evolutionary biology because species is the unit of evolution. There are as many definitions of species as there are authors who have written about them. Some of these are: morphological species concept, biological species concept, evolutionary species concept, recognition species concept, cohesion species concept, phylogenetic species concept, Greek species concept, tyological species concept, Darwin's species concept, ecological species concept, phenetic species concept, etc. [4].

In the morphological species concept, morphological similarity or dissimilarity is the sole criterion for determining species. Sexual dimorphism, polymorphism and sibling species pose many problems to this concept. This concept forms the basis of the taxonomic classification of the organisms. There are exceedingly

similar or nearly identical (morphologically) sympatric (living in the same place) populations but are reproductively isolated from one another. These populations are referred to as sibling species. Conversely, there are populations with great morphological differences that freely interbreed. In the biological species concept proposed by Ernst Mayr, species are defined as groups of interbreeding natural populations, which are reproductively isolated from another such groups [5]. This concept was originally proposed by Dobzhansky in 1935 who defined species as "that stage in the evolutionary process at which the once actually or potentially interbreeding array of forms become segregated in two or more separate arrays which are physiologically incapable of interbreeding." [6]. Morphological similarity or dissimilarity is not the criterion for distinguishing the species. The theoretical basis of this judgement is that the specialized structures of the genitalia prevent successful copulation of unrelated individuals from different species. But this criterion is also not universally applicable. Closely related to this concept is the genetic species concept, which defines a species as a group of organisms that share genetic drift. Genetic species arise from the process of replication, which is the essential function of the DNA [7]. In the biological species concept, besides reproductive isolation, species are viewed as representing the total collection of gene pools in all the demes (i.e., populations) of individual species. A species is thus a genetic unit. The major drawback of the concept is that it cannot be applied to asexual organisms. In the evolutionary species concept, a species is a single lineage of ancestor-descendant populations of organisms which maintains its identity from other such lineages (in space and time) and which has its own evolutionary tendencies and historical fate. In recognition species concept of Patterson, a species is the most inclusive population of individual biparental organisms, which

share a common fertilization system. The cohesion species concept of Templeton defines species as the most inclusive population of individuals having the potential for phenotypic cohesion through intrinsic cohesion mechanisms. In the phylogenetic species concept of Cracraft, species is defined as irreducible (basal) cluster of organisms diagnosably distinct from other such clusters and within which there is parental pattern of ancestry and descent. The concept is applied in the analysis of evolutionary lineages, cladograms, etc.

According to Ernst Mayr, the species is the principal unit of evolution and it is impossible to write about evolution, and indeed about almost any aspect of the philosophy of biology, without having a sound understanding of the meaning of species [8]. Going by that reasoning neither Darwin nor himself should have talked about evolution. All the confusion and complexity existing in the definition of species put evolutionary theory in a quandary. What exactly then the theory conveys by the term species? Mayr further admits that "the conclusion that there are concrete describable objects in nature which deserve to be called "species" is not unanimously accepted. There has been a widespread view that species are only arbitrary artifacts of the human mind, as some nominalists, in particular, have claimed." [8]. It is important to note that the pedigree of a species deduced from the ancestral lineage can change depending on how a species is identified and classified. As rightly pointed out by Graybeal, to try and divide all organisms into 'species' using one of today's concepts, is misguided because the important characteristics used to define species, interbreeding and descent, are only variably attained by groups of individuals which one might call species [9]. In other words, evolutionists are literally spewing out meaningless information in the garb of evolutionary biology.

Evolutionary Tree – A Myth

Genomic similarity is considered as the indicator of evolutionary relationship between organisms. The most spectacular example is the genomes of human (*Homo sapiens*) and chimpanzee (*Pan* sp.) which are nearly the same (98.7%) [10]. Although evolutionary biologists use genomic similarity to support their argument of human evolution from animal and to establish chimpanzee as the closest animal ancestor of human being, they have not been able to point out so far the phenotypic similarities between human and chimp in terms of anatomy, physiology, development and other biological features. A chimp is not 98% human being nor is a human being 98% chimp. The chimp has a head, a nose, two eyes and several other organs, which man has. The similarity ends there in the names of the organs and perhaps in their numbers as well. Many other animals also have these organs as in man. *A human being differs from chimp in every detail at every point of the body*. The differences in traits, characteristic behaviour, instincts and capabilities between human and chimpanzee are far greater than the small degree of sequence divergence (1.3%) could account for. There is not a single anatomical, physiological, morphological or biochemical characteristic that is identical in both species. Yet evolutionists make such tall claims of animal ancestry. The chimp-human comparison is a case of similar genomes but dissimilar phenotypes. The reverse case is also now known. *Caenorhabditis elegans* and *C. briggsae* are physically very similar organisms. It takes an expert to distinguish them. The two have near-identical biology, even down to the minutiae of developmental processes. Surprisingly, however, their genomes are not so similar [11, 12].

Comparative genomics assumes that common features of two organisms will often be encoded within the DNA that is

conserved between the species. "More precisely, the DNA sequences encoding the proteins and RNAs responsible for functions that were conserved from the last common ancestor should be preserved in contemporary genome sequences. Likewise, the DNA sequences controlling the expression of genes that are regulated similarly in two related species should also be conserved. Conversely, sequences that encode (or control the expression of) proteins and RNAs responsible for differences between species will themselves be divergent… Not only does comparative genomics aim to discriminate conserved from divergent and functional from nonfunctional DNA, this approach is also contributing to identifying the general functional class of certain DNA segments, such as coding exons, noncoding RNAs, and some gene regulatory regions…. comparative genomics is thus a powerful and burgeoning discipline that becomes more and more informative as genomic sequence data accumulate…. Alignment of DNA sequences is the core process in comparative genomics. An alignment is a mapping of the nucleotides in one sequence onto the nucleotides in the other sequence, with gaps introduced into one or the other sequence to increase the number of positions with matching nucleotides." [13]. Over very long phylogenetic distances (e.g., greater than 1 billion years since their separation), the order of genes and the sequences regulating their expression are generally not conserved. At moderate distances (roughly 70–100 million years), both functional DNA and nonfunctional DNA are found within the conserved DNA. The functional sequences are signs of purifying or negative selection, i.e., the functional sequences will have changed less than the nonfunctional or neutral DNA. In contrast, very similar genomes, such as those of humans and chimpanzees (separated by about 5 million years of evolution), would show the key sequence

differences that may account for the differences in the organisms. These are sequence changes under positive selection [13]. All these descriptions and interpretations make sense only if there is good correspondence between genome (genotype) which packs the genetic information and phenotype across taxa. Unfortunately we do not find such relationship exists between genome and phenotype to any reasonable degree.

Basically, comparative genomics is a description of the matches between genomes. The most glaring omission in the stories constructed from genomic data is comparison of phenotypic similarities *vis a vis* genomic similarities. Without studying the genome-phenome matching, mere genomic comparison of two species does not support the evolutionists' arguments of descent with modification and determination of ancestry. For instance, the argument that man evolved from chimpanzee makes no sense without specifying the phenotypic similarities conferred by the 98% genomic similarity. In the absence of demonstration of genome-phenome correspondence between the assumed ancestor and the species evolved from it, the concept of descent with modification (phylogenetic tree) is no more than a wishful thinking.

To cover up this lacuna in the stories reported, evolutionists bring in all sorts of imaginary explanations. Thus we find explanations and glossaries of various shades galore in evolutionary literature. For a sample, we have the terms "conserved" (i.e., derived from a common ancestor and retained in contemporary related species. Conserved features may or may not be under selection), "evolutionary drift" (the accumulation of sequence differences with little or no impact on the fitness of an organism. Such neutral mutations are not under selection), "homologs" (i.e., features including DNA and protein sequences in species being compared that are similar because they are ancestrally related),

"negative selection" or "purifying selection" (i.e., removal of deleterious mutations from a population), "nonredundant protein sets" (i.e., set of proteins from which similar proteins, derived from duplicated genes, have been removed), "orthologs" (i.e., homologous genes that separated because of a speciation event; they are derived from the same gene in the last common ancestor), "paralogs" (i.e., homologous genes that separated because of gene duplication events), "phylogenetic tree" (which shows the deduced relationships among the organisms in the form a tree), "phylogenetic distances" (i.e., measures of the degree of separation between two organisms or their genomes, expressed as number of accumulated sequences changes, number of years, or number of generations; the distances shown on phylogenetic trees), "positive selection" or "Darwinian selection" (i.e., retention of mutations that benefit an organism), "synteny" (i.e., being on the same chromosome), "conserved synteny" or "homology blocks" (genes that are on the same chromosome in one species are also on the same chromosome in the comparison species), etc. [13].

The entry of explanations and terminologies such as "negative selection", "evolutionary drift" or "neutral mutation", etc., into evolutionary literature questions the very essence of Darwinism. All these expressions weaken the theory further. Instead of rejecting the theory altogether and seeking alternative explanation, the evolutionists are doing disservice to the humanity in general and to science in particular by upholding it. Advancement in molecular biology, genetics, bioinformatics, genomics, proteomics, etc., is bound to expose more and more limitations of Darwinism-based theory of evolution in the future than proving its validity.

The term "evolution" appeared in Darwin's book *The Origin of Species* from its sixth edition onwards. Until then Darwin preferred to refer to his theory as "descent with modification"

[14]. Molecular tools enable us to compare the genetic similarities through genome analysis and to ascertain the genetic relationships among species and their pedigrees [15]. The construction of a phylogenetic tree is conceptually simple. The number of differences between pairs of corresponding DNA sequences from different organisms is taken to be some measure of the "evolutionary distance" that separates them. Pair-wise differences between the sequences of many organisms are used to construct maps of the evolutionary paths that led to the modern-day sequences [16]. Application of the techniques does not however solve the problem of ambiguity. Protein sequencing offers a tool for establishing homologies from which genealogies leading to the construction of phylogenetic tree can be arrived at. The number of amino acid differences between the beta chain of human haemoglobin and haemoglobins of other species is assumed to be inversely proportional to the closeness of kinship. This is an example of molecular homology. Another example is the comparison of the amino acids and their sequences in cytochrome c (which is a part of the respiratory chain through which electrons are passed to oxygen during cellular respiration) among the different species. The more the identities, the more recently have they evolved from a common ancestral molecule and thus closer the kinship of their owners. Thus the cytochromec of rhesus monkey is identical to that of humans except for one amino acid, whereas the yeast cytochrome c differs from that of humans at forty four positions. All such comparisons are justifiable if the assumption that new species originate through gradual change in the existing species has been proved. Insofar as the unsung phenotypic dissimilarities among cousin species are far more than the much talked about genetic similarities, the projection of genomic similarities between species as an indicator of their closeness on the evolutionary ladder

will be highly misleading. Further, phylogenies generated from sequences of a protein represent the phylogeny of the gene encoding the protein, and may or may not be equivalent to the phylogeny of the species [17].

The phylogenetic tree constructed by Walter M. Fitch and Emanuel Margoliash based on the evolutionary history of cytochrome c in 20 species of eukaryotes showed agreement to what is long thought to be evolutionary relationships among the vertebrates [15]. However, there are discrepancies. The primates (humans and monkeys) were found to split off before the split separating the kangaroo, a marsupial, from the other placental mammals. The evolutionists, however, do not agree with this evidence.

DNA-led species discovery is more contentious, but again is not new. In animals, inclusion of mtDNA evidence in biogeographic and systematic analyses often reveals unexpected diversity or discordance with morphology. Potential limitations of using mtDNA to infer species boundaries include retention of ancestral polymorphism, male-biased gene flow, selection on any mtDNA nucleotide (as the whole genome is one linkage group), introgression following hybridization, and paralogy resulting from transfer of mtDNA gene copies to the nucleus [18].

A report of the study on family tree of ants published in *Science* runs as follows (italics added): "Ants come in all sizes, from smaller than a grain of sand to larger than a thumb. Now, by rebuilding the ant family tree, researchers have discovered that the ancestral ants that led to all this diversity date back 30 million years longer than previously thought. The study also indicates that it wasn't until the rise of flowering plants that ants truly became diverse. Systematists have struggled for years to determine the relationships between various ant species. *Family trees based*

on morphological or DNA data are often at odds with each other, thwarting efforts to reconstruct the history of this pervasive insect. Harvard graduate student Corrie Moreau's solution was to use a lot more DNA from 139 ant genera – about half the known genera – in her analysis. She compared sequences from *six genes* to estimate which ants were ancestors, cousins, or distant kin. She then combined this information with the estimated ages of 43 fossils and ants preserved in amber to come up with a timeline of ant evolution." [19]. There are two points in this article worth noting; one is, evolutionists admit that evolutionary trees based on morphological characters and molecular data are always at loggerheads and the other is, granting the assumption of descent with modification, the family tree reported in the paper is meaningless as it is known that the genealogy that results from DNA analysis only correspond to the gene(s) concerned and not the species. To add punch and credibility to the claims the report is embellished with comments from other evolutionists: "It's the largest phylogenetic analysis of ants published to date and also the one that attempts to incorporate most of the information available from our growing fossil ant record," says Roberto Keller, an ant systematist from the American Museum of Natural History in New York City. As such, adds Phil Ward, an ant systematist at the University of California, Davis, "this is a landmark paper that offers a new framework for ant evolution." [19]. No amount of such endorsements would make interpretations of the kind reported in the paper a fact as the method used in the study is not foolproof. Needless to say, it is time that evolutionists stopped using inadequate methods in their studies and produce ambiguous results to mislead people.

The reconstruction of the universal tree and the assessment of the genetic diversity of each branch are helped by the hypothesis

of the molecular clock of evolution put forward in the 1960s [20]. Kimura's neutrality theory of molecular evolution provided a mathematical formulation which made the clock hypothesis amenable to empirical testing. The molecular clock postulated by neutrality theory is not a metronomic clock like timepieces in ordinary life that measure time exactly, but it is a "stochastic clock" like radioactive decay in which the probability of change is constant although some variation occurs. The molecular clock hypothesis tells us that the number of amino acid differences in a given protein is proportional to the time elapsed since the divergence of the organisms compared. This proportionality was assumed based on the hypothesis that many amino acid (and nucleotide) substitutions may be of little or no functional consequence, and that most substitutions that occur in evolution will be of this kind rather than involving amino acid replacements strongly constrained by natural selection. Ayala reviewed the evolution of two genes, *Gpdh* (glycerol-3-phosphate dehydrogenase) and *Sod* (superoxide dismutase) in *Drosophila* fruit fly. The two clocks yielded different rates of evolution. If one were to assume that *Gpdh* and *Sod* are good clocks and project the Drosophila rate to estimate the time of divergence of the three multicellular kingdoms (plants, animals, and fungi), *Gpdh* would yield an estimate of 3990 million years, *Sod* an estimate of 224 million years, both very much off the commonly accepted divergence time of approximately 1100 million years. The molecular clocks are to be used with caution [20, 21].

According to Forterre, "The division of the living world into three cellular domains, Archaea, Bacteria, and Eukarya, is now generally accepted. However, there is no consensus about the evolutionary relationships among these domains, because all of the proposed models have a number of more or less severe

pitfalls. Another drawback of current models for the universal tree of life is the exclusion of viruses, otherwise a major component of the biosphere." [22]. Comparisons of the genes encoding ribosomal RNAs of the microbes suggested that life began with some primitive bacteria. These then branched into Archaea, modern bacteria and later to eukaryotes. However comparisons of DNA sequences of other kinds of genes had led to varied versions of the evolutionary tree making the tree of life more confusing rather than more focusing. One reason attributed to this 'unexpected' finding is the lateral transfer of the genes. [23]. According to Andre Goffeau, a geneticist at the Universite Catholique de Louvain, Belgium, there is so much lateral transfer that even the concept of the tree is debatable. The genomes of modern microbes may be mosaics of genes from different organisms rather than descendants of any single early form of life suggesting thereby that not even the ribosomal genes reflect evolutionary relationships [23]. In the case of bacteria, lateral gene transfer has been considered to be so widespread that it renders the concept of species among bacteria meaningless and makes it impossible to construct an evolutionary tree. Daubin *et al*. addresses this aspect [24]. Philippe and Forterre [25] demonstrated that the phylogenies were highly confusing due to the combining effects of gene duplication, gene loss, lateral gene transfer and tree reconstruction artifact. Many alternative scenarios were proposed with no obvious possibility to make a rational choice. Archaebacteria were polyphyletic, the majority of them clustering with Eubacteria and only *Pyrobaculum* with eukaryotes. However with maximum-likelihood and maximum-parsimony methods, the Archaebacteria were paraphyletic. According to them, the genes tRNA synthetase, ATPase, and carbomyl phosphate synthetase could not be used confidently to root the tree of life because of the difficulty to choose between different

evolutionary scenarios, knowing that gene duplication, gene loss, and lateral gene transfer have been frequent during prokaryotic evolution. The results of a study of the patterns of a certain type of genomic change, called transposon insertions, among 13 vertebrate species supported an earlier proposal of evolutionary trees showing that primates (human, chimpanzee, baboon) are more closely related to rodents (mouse, rat) than to carnivores (cat, dog) or artiodactyls (cow, pig) [26]. This placement had earlier triggered off a heated controversy in the field of evolutionary genomics as the new sequence data refutes alternative evolutionary tree that place rodents much farther away from primates. The evolutionary tree constructed based on genetic parameters is clearly a departure from the expected morphological classification. According to Goodson and Dawson, "How does one begin to make sense of such complexity? The now standard approach has been to perform a "phylogenetic analysis," basically, to determine the evolutionary relationships between members of a gene family on the basis of amino acid sequence similarities (homology) between conserved regions….The derived relationships are presented visually as a "phylogenetic tree"…. Phylogenetic trees can aid in predicting which homologs exist in a given organism (useful for unsequenced organisms) or inferring which ones existed in ancestral organisms (important for considering the evolution of cell biological processes). Of course, *the utility of a tree depends on its accuracy…phylogenetic analyses are subject to interpretation. There are many reasons that a tree can fail to properly reflect the actual path of evolution. One common issue is taxon sampling: trees with more "leaves" (more sequences from more diverse organisms) are often more robust*…" [27, emphasis added].

A particularly unexpected outcome of the studies in this

field is that structures traditionally viewed as being analogous are regulated in their development by genes that are homologous. There is uncertainty among biologists in the determination of homology. Some are of the view that traditional conclusions about the relatedness of certain structures should be revised in favour of homology whereas others stress the need for caution. The validity of gene sequence and expression data to generate information on structural homology thus becomes questionable. We must accept that homology is usually a hypothesis about evolutionary history rather than a deduced matter of fact [28].

The picture that emerges from the foregoing discussion is the uncertainty of the claims of origin of species by descent with modification from a common ancestor. The traditional taxonomic classification based on similarities and dissimilarities in morphological and anatomical characteristics (or any other characters) is useful for distinguishing and identifying organisms and also for describing the biological diversity in nature. Extension of this objective in a wider perspective to draw the evolutionary history (as is done in cladistics) would not yield any meaningful results with certainty. The difficulties and ever-increasing inconsistencies observed with the phylogenetic approach greatly mar its scientific merit. *The available information indicates that the diverse forms of life could not have evolved from a common ancestor. There is no evidence whatsoever to say that morphological, anatomical, embryonic and genetic relationships among diverse forms of life are indicators of descent with modification from a common ancestral species.* It is also argued that similar genomes should result in similar phenotypes under identical environmental conditions. However, nature provides clear proof that it is not so. Polyphenisms observed in many insects (e.g., queen and worker castes of ants, bees and

wasps) are typical examples of the differential gene expression in spite of the similar genomes [29]. These natural phenomena are evidence of the non-correspondence of one genome-one phenotype concept and question the very basis of determining phylogeny based on genome analysis. Some of the important reasons for these problems are as follows.

a) The only taxonomic category that exists in nature is the so-called species; higher categories like genus, family, class, order, phylum, etc. are created by taxonomists and are not a natural fact. Thus whether two species should be placed in the same genus or not depends on the criteria considered. In other words, as criteria change, the placement will also change.

b) The idea that evolution of a structure or a species takes place from an existing homologous structure or similar species as the case may be is purely a product of imagination. Nature on the other hand demonstrates through numerous examples that transformation of a structure or a biological system as a whole into a totally different one does not require homologous structures or closely resembling systems. Transformation (evolution) of a larva into a moth or a grub into a weevil is a clear-cut proof of this. Such cases are indicative of the possibility of evolution of a new species from a totally different one.

c) Classification based on evolutionary kinship often leads to nonsense results. For example, a phylogenetic tree showing the history of salmon (a fish), the lungfish, and the cow would require placement of the lungfish and cow in the same clade and the salmon in another clade. In the traditional classification, the lungfish and salmon are placed in class Pisces (fishes) and cow in the class Mammalia.

d) It is also practically difficult to deduce the evolutionary history of species in all the phyla and also to subject them to computer

analysis for sorting out the clades.

e) Considerable evidence is now available to show that mutation rates are not steady in different branches of the phylogenetic trees. Thus a branch based on molecules that have evolved rapidly would seem longer than otherwise. Phylogenetic analysis has some statistical quirks. For example, the gene sequences that evolve most quickly tend to come together on trees, even if they are only distantly related. A study based on slowly evolving sequences placed a non-thermophilic group of bacteria at the base of the bacterial family tree [30].

f) Back mutations would mask the changes that precede them and make branches look shorter than they should be.

g) Gene sequences of many bacteria reveal transfer of genes from one group to another rather than the result of descent from a common ancestor. These horizontal transfers cast doubt on the possibility of ever constructing a proper phylogenetic tree for the microorganisms. Further genomic similarities between two species have not been demonstrated to yield similar phenotypic comparison between them.

h) Several difficulties arising from the so-called convergent evolution both at the level of species and molecules, also make cladistic approach less preferable. For example, the North American woochuck or groundhog and the Australian wombat appear to be close relatives. However their similarities are not homologous but analogous. The wombat has no placenta and has a pouch for caring the young as in other marsupials and should be classified with them. In the cladistic system, the wombat is placed in the marsupial clade in spite of the fact that it is a mammal [31].

i) Construction of phylogenies relies on the principle that a bigger difference in sequence between two species means a more

remote common ancestor. The number of possible trees rises exponentially with each species added to the analysis. Although mathematical techniques have been devised to find out the most likely tree, it is often difficult to choose between the many possibilities with any confidence although comparing many genes can make the choice easier [32].

j) The patterns of ancestry vary depending on the gene considered. In other words, what the phylogeny reveals is the ancestry of only the gene and not the phylogeny of the species that carries it [32]. Gilad *et al*. observed: "A number of recent studies have used DNA microarrays to compare patterns of gene expression between closely related species… To date, conclusions about the selection pressures acting on gene expression have been conflicting. These studies have all relied on data collected from arrays using gene probes that were designed on the basis of human sequences only…. This limitation of single-species arrays is especially problematic when the goal is to study how expression changes over evolutionary time."[33].

The remark of Mary Leakey, paleoanthropologist, in an interview with Associated Press is relevant in this context: "All these trees of life with their branches of our ancestors, that's a lot of nonsense." [34]. Presenting an impressive cross section of the growing body of evidence questioning the veracity of the evolutionary tree, Elizabeth Pennisi categorically observed: "More genomes have only further blurred the branching pattern of the tree of life. Some blame shanghaied genes; others say the tree is wrong". These observations prompted her to ask the most obvious question: "Is it time to uproot the tree of life?" [23].

The available literature on species and phylogeny passes a clear verdict of the failure of species and phylogenetic concepts.

Instead of finding explanations for the failures and introducing new concepts and new lines of arguments to suit the contexts, evolutionary biologists should have shown wisdom and preparedness to review the entire theory of evolution. There is no species, no phylogeny and no evolutionary tree of the kind evolutionists claim. In other words, the assumption of descent with modification as the mode of origin of species is patently absurd and wrong. The whole concept of Darwinian evolution must be rejected.

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5. THE MAKING OF EVOLUTIONARY SCIENCE

We have already seen that the assumptions of Darwin's theory are not scientifically sound and it has not been possible to change an organism into another employing molecular tools. Despite these obvious failures, evolutionists blindly believe that evolution is a proven fact and the theory of evolution is as scientific as any in physics or chemistry. Consequently, they interpret the results of their studies *to suit this assumption*. As W.R. Thompson commented: "This situation, where men rally to the defense of a doctrine they are unable to define scientifically, much less demonstrate with scientific rigor, attempting to maintain its credit with the public by the suppression of criticism and the elimination of difficulties, is abnormal and undesirable in science.... I am not satisfied that Darwin proved his point or that his influence in scientific and public thinking has been beneficial." [1].

Evolutionists' Explanations of Biological Diversity

A perusal of the literature on biological evolution brings to the fore the most disturbing trend in the advancement of explanations. It appears that the present-day evolutionists are emulating Darwin in letter and spirit by suggesting imaginary explanations to account for the biodiversity observed in nature. They deliberately ignore the necessity of proving the theory scientifically. They know it has not been proved, but yet they propagate it is a scientifically proven theory. Their studies assume that evolution is a fact and they interpret the results to suit this assumption. This is how the voluminous literature which the evolutionists proudly call 'scientific proof' of the theory has been generated. Every research paper published in evolutionary biology reflects this trend. Some samples are presented below.

Evolution of human intelligence

Stedman *et al*. proposed that we owed our superior

intelligence to weak jaw muscles! A mutation that occurred 2.4 million years ago could have left us unable to produce one of the main proteins in primate jaw muscles [2]. Hopkin narrates the work as follows: "The story hinges on a protein called MYH16, a chief component of the powerful jaw muscles of many non-human primates such as chimpanzees and gorillas. When the researchers examined human DNA samples from across the world, they discovered that we all share a defect in the gene that creates this protein. Using estimates of evolution rates, they deduced the mutation's age. The researchers then compared human skulls to those of other primates and saw that even distantly related species, such as gorillas and macaques, share large crests on their skulls to which their heavy jaw muscles attach. Such structures are notably absent from human skulls despite our fairly close genetic kinship with gorillas…. By doing away with large anchors for chewing muscles, our skull may have freed itself to grow into its modern, rounded shape, says Stedman. Powerful jaws may be incompatible with powerful brains, he suggests." Hopkin also mentions arguments made by other scientists against this view, particularly indicating that skull crests do not limit the growth of other primate's brains and the early human *Homo erectus* had a small brain as recently as 1.8 million years ago [3].

So our superior intelligence evolved because of our weak jaw muscles! That offers an answer to the question of origin of human intelligence. Do the authors of this paper and the editor of the journal that published it really believe so? One can attribute any other difference also as responsible for development of intelligence by the same yardstick. If the authors' claim is correct, it will be possible to create intelligence in non-human primates also by creating the necessary defect in the gene concerned. Nevertheless, no scientist is going to make an attempt to create

intelligence in non-human primates on the strength of that report because they know it is not correct. It leaves an important question unanswered – why are such papers published?

Processing power of flying reptiles

Witmer *et al*. [4] explained the very high processing-power in the back of ancient flying reptiles' brains as to provide highly responsive flight control. They used high resolution X-ray computed tomography to look into the uncrushed skulls of two kinds of pterosaur, flying reptiles that flourished during the Mesozoic (between 251 million and 65 million years ago) and generate a digital cast. One of the specimens was of *Rhamphorhynchus*, a long-tailed, crow-sized creature from the Upper Jurassic (163-144 million years ago) and the other of *Anhanguera*, a large, short-tailed from the Lower Cretaceous (144-97.5 million years ago) i.e., a 'primitive' form and an 'advanced' form respectively. The brain structures called floccular lobes which extended outwards and backwards from the rear part of the brain were exceptionally large in pterosaurs while semi-circular canals encircling the floccular lobes were involved in balance. Taking the cue from the living vertebrates in which the orientation of semicircular canal that encircle floccular lobes in the brain related to the 'alert' position usually adopted by the head, they deduced that the head posture of *Rhamphorhynchus* and probably all other primitive pterosaurs was normally horizontal while in *Anhanguera* and most of the advanced forms the head was directed sharply downwards at about 30°. According to Unwin who commented on the work, explaining the difference in head orientation is not easy. As the researchers suggested, the head orientation related to the large cranial crests in many advanced pterosaurs including *Anhanguera* and this could have affected skull aerodynamics during flight and required some repositioning of the head. However

this was not consistent with the large cranial crests in several 'primitive' pterosaurs. Alternately, could it be related to feeding habit as the 'advanced' pterosaurs were supposed to be aerial fish-catchers. Again there were inconsistencies. Many 'advanced' forms were not airborne fishers; but several 'primitive' forms, as the specimen of *Rhanphorhynchus* with a fish in its belly testifies, fished successfully with their horizontal head posture. Now the interpretation took an altogether different turn involving the reptilian ancestors. Like their reptilian ancestors, the primitive pterosaurs with their relative short arms were condemned to walk with the body and head in a near horizontal position, aligned with the lateral semi-circular canal. But since the advanced forms used their relatively long arms to prop themselves upright, they needed to restructure the skull and its posture. As a result, re-orientation of the semi-circular canals would have occurred. However, these ideas did not address the extraordinarily large size of the floccular lobes in pterosaurs. The authors suggested therefore that this region of the brain might have been responsible for coordination of the head, eye and neck, permitting gaze-stabilization during flight. This explanation is not, however, satisfactory as not all pterosaurs are aerial hunters relying on sight. According to Unwin, perhaps the more convincing view is their proposal of floccular lobes being responsible for processing large volumes of sensory data generated by the wing membranes because in other vertebrates, the floccular lobes receive sensory inputs from skin and muscles and the wing membranes contain structural fibres, blood vessels and a fine network of muscles [5]. "These features *would have* given the wings the ability to collect and transmit sensory information about local conditions within the membranes, enabling pterosaurs to build up a detailed map of the forces experienced by the wings from moment to moment. Processing

via the floccular lobes *could have* allowed them to respond very rapidly, through localized contraction or relaxation of muscle fibres within the membrane and coordination with fore- and hind-limb movement. Equipped with their 'smart' wings, pterosaurs *would have* had excellent flight control. Despite their antiquity, they *could even have* outperformed modern birds and bats." [4, italics added]. By looking at the images of the skulls, you can say how all these characters developed in the species millions of years ago. Science is indeed becoming an entertaining read than a novel!

Obesity in gibbon

"The obesity epidemic has sent researchers scurrying to find genes that might be implicated in what is now regarded as a major public health problem…. One candidate is agouti signaling protein (ASIP), which is highly expressed in human fat tissues and also plays a role in skin pigmentation. Many mammalian species have their own versions of ASIP, as do chickens and fish. To trace the evolutionary history of the ASIP gene in primates, University of Tokyo biologists Kazuhiro Nakayama and Takafumi Ishida compared the gene's DNA sequence among several species. In addition to humans, the pair found the gene in chimps, gorillas, and several species of monkeys. The gene was very similar in all of these animals, but it was missing in the four species of gibbons they examined. If that's the case in the eight or so other species of gibbons, then ASIP must have been deleted during a genetic reshuffling that took place before the gibbons diverged from other apes on the evolutionary tree, probably around 25 million years ago, Nakayama and Ishida report in the April issue of Genome Research. They suggest that this genetic "knockout" helped the gibbons to adapt to life in the trees: The lightweight animals swing from branch to branch with a speed and agility that puts most other primates to shame." [6]. By just looking at the gene's DNA

sequence, one can say why gibbon is slim, why it is tree-savvy and when it came into being. A great "knockout"!

History of a frog species

Consider another paper about a new frog family [7]. The researchers discovered a new frog species from Western Ghats, India, which they named *Nasikabatrachus sahyadrensis*. They did non-destructive X-ray photographic analysis of skeletal characters, DNA sequencing and applied computer programs for phylogenetic characterization of the species. They also made divergence time estimates using relaxed molecular clock. The phylogenetic position of Sooglossidae is not well understood. The researchers concluded that phylogenetic analyses of 2.8 kilobases of mitochondrial and nuclear DNA unambiguously designated this frog as the sister taxon of Sooglossidae, a family exclusively occurring on two granitic islands of the Seychelles archipelago. Molecular clock analyses indicated that the major neobatrachian lineages originated relatively rapidly in the Middle/late Jurassic and Early Cretaceous periods. It was around this time the Gondwanan supercontinent broke up into two landmasses – western Gondwana (Africa and South America) and eastern Gondwana (Australia, Antarctica and Indo-Madagascar) – which rapidly disintegrated further into their respective components. These geological events probably isolated the stem group leading to Nasikabatrachidae/Sooglossidae clade on the Indo-Madagascan fragment of eastern Gondwana. They claimed that their discovery disclosed a lineage that may have been more diverse on Indo-Madagascar in the Cretaceous period, but now only comprises four species on the Seychelles and a sole survivor in India. Because of its very distinct morphology and an inferred origin that is earlier than several neobatrachian families, this frog was recognized as a new family. The discovery of an ancient extant

frog lineage in India disclosing a clade significantly adds to the understanding of early neobatrachian biogeography. All these conclusions are being drawn from so many unproven hypotheses and studies conducted using invalid methods. Although the inefficiencies of the methods used in phylogenetic analysis and molecular clock are known (see chapter 4), scientists still use them and generate erroneous data and results. What confidence can one have in their findings? It may be borne in mind that none of the methods being used to reconstruct the past events (the events are also assumptions) can be tested because to find out what the evolutionists say is correct we have to travel back in time, which is an impossibility.

Evolution of army ants

Army ants constitute three well-defined taxonomic subfamilies, two (Aenictinae and Dorylinae) restricted exclusively to the Old World and the other (Ecitoninae) to the New World. They possess a syndrome of behavioural and reproductive traits, which includes obligate collective foraging (they never hunt or forage solitarily), nomadism and highly modified queens with massive reproductive pulses up to 3 to 4 million eggs per month in some species. The traditional view is that the army ant syndrome originated several times in independent lineages restricted to the New World and Old World, respectively. Brady [8] tested the validity of the polyphyly hypothesis by using a combination of genetic, morphological and fossil data. The results indicated a monophyletic origin of army ants, which implied that they inherited their behavioural and reproductive adaptations from a unique common ancestor. The age for the most common ancestor of the Old World and New World army ant lineages was estimated at 105 Mya which was congruent with the geological timing of the complete separation between Africa and South America

(approximately 100 Mya). Based on the single origin and geological time estimate, the author squeezed out the story of how army ants originated aeons ago with their characteristic syndrome of behavioural and reproductive traits. "These roving army ant colonies became the premiere collective hunters of the tropics, capturing prey typically unavailable to other insects: social wasps, large arthropods, and even small vertebrates, but at the cost of requiring expansive, contiguous foraging ranges. After these adaptations became fully integrated into the lifestyle of army ants, no extant lineage subsequently lost any of these traits, suggesting that extreme specialization has prevented the evolution of alternative strategies. This is perhaps the most striking case of long-term evolutionary stasis in the behaviour of a social insect, with the exception of the entrenchment of eusociality." [8]. This story reads like one from mythology. The 105-Mya story is so smooth and flowing that we may even miss a contradictory point to evolutionary theory suggested by the author; that is, the ant species had already undergone whatever change it could and there will be no more change.

There is a common thread in all these stories. No one bothers whether the design of the study, the methods used, and the quality and quantity of data generated would permit one to draw those conclusions. Sitting within the four walls of the laboratory we are now re-constructing the events *assumed* to have taken place millions of years of ago so beautifully and so vividly! Despite mounting evidence against the theory, a major section of the scientific community is still bent upon promoting it. As rightly pointed out by Motoo Kimura, "Looking back, I think that it is a curious human nature, that if a certain doctrine is constantly being spoken of favourably by the majority endorsed by top authorities in their books and taught in classes, then a belief

is gradually built up in one's mind, eventually becoming the guiding principle and the basis of value judgement." [9]. What Kimura says is the ground truth. In the evolutionary literature, one comes across all shades of propmotional gimmicks.

There appears to be no need for data to support one's interpretation. For example in the following case conclusions drawn are not based on the required data [10, italics added]. "Kentia palms live on an island in the South Pacific, yet some of them *somehow evolved* – right there in the same gene pool – into the curly palm. Likewise, the Arrow cichlid fish of Nicaragua evolved as a sister species to the Midas cichlid without any physical barrier to gene flow. These *unusual* cases, described online 8 February in *Nature*, help bolster support for a controversial idea called sympatric speciation: speciation that occurs without geographic isolation. Typically, one species splits into two new species only when some of its members wind up isolated in a different location. Many theorists have predicted that sympatric speciation is also possible, but the phenomenon has been difficult to prove. Now there are two case studies."

"Axel Meyer, an evolutionary biologist at the University of Konstanz in Germany, visited an isolated 5-kilometer-wide crater lake in Nicaragua. Early in its 23,000-year history, the lake was settled by the Midas cichlid. When the team compared its mitochondrial DNA and other genes to those of an endemic fish called the Arrow cichlid, they found that the Arrow cichlid – *which evolved from the Midas cichlid* fewer than 10,000 years ago – was *different enough* to warrant its current status as a separate species. There were other signs that the fishes had gone their separate ways: One is a bottom feeder whereas the other isn't, and they can't interbreed successfully. *Meyer thinks* this sympatric speciation may underlie at least some of the hard-to-explain vast

diversity of African cichlids."

"Vincent Savolainen and William Baker of the Royal Botanic Gardens, Kew, in Richmond, U.K., went to Lord Howe Island in the Pacific Ocean – a 12-square-kilometer speck of volcanic rock, 580 kilometers east of Australia. They and colleagues built a DNA-based family tree that included the two palms. They found that the curly palm descended from the Kentia palm (a common houseplant) about 1 million to 2 million years ago. Although the two species coexist in 20% of the sites surveyed, they flower 6 weeks apart. Kentia palms thrive in basic soil, whereas curly palms stick to acidic soils. Savolainen and his colleagues suggest that as the Kentia palm *spread into different soils, flowering time was delayed, possibly because the genes needed to adapt to the altered pH affected the transmission of those involved in flowering*. Eventually, plants in basic soil could no longer pollinate trees in acidic soil and vice versa."

"These papers are important because *they are very convincing*, and they are *timely*," says Giacomo Bernardi, an evolutionary biologist at the University of California, Santa Cruz. Now evolutionary biologists have *real data* with which to evaluate theoretical models of this process. Indeed, adds Jeffrey Feder, an evolutionary biologist at the University of Notre Dame in Indiana, sympatric speciation "may not be as uncommon as some presume."

This report has all the ingredients, which Kimura mentioned. One forgets the fact that the terms such as sympatric speciation are spin-offs of the evolutionary theory. Such terms are a commonplace in the evolutionary literature. These are introduced by evolutionists to explain situations where their usual explanations fail and not because nature warrants them or it does things differently. In Axel Meyer's study it was mentioned that Arrow

cichlid evolved from Midas cichlid. Who proved it and how? *There is no way to prove that one organism evolved from the other*. In the case of the Kentia palm and curly palm the authors attributed the temporal differences in flowering as due to the influence of environment (soil pH) on the gene concerned. They could have experimentally tested it by planting the curly palms in a basic soil and see whether their flowering will be delayed or not. They do not even test what can be tested. If they test the validity of their explanations and if the explanations prove correct it will only add support to their claims. Geographic isolation is one pre-requisite the evolutionists insist for the evolution of new species from an existing one. But this condition was not required in the cichlid and palm cases. This means that species can evolve with or without geographic isolation. If it is possible either way what is the need for insisting the condition of geographic isolation at all? It will only add unwarranted concepts like sympatric speciation to evolutionary jargon and fatten the literature dubbed as "facts of evolution" or "proof of evolution". We have already discussed in chapter 3 the arguments of Darwinists for and against gradualism and natural selection. Now we have one more to that list. Ultimately the theory would be reduced to nothing with no assumptions and no mechanisms. A time will come soon when evolutionists will declare boldly that evolution can occur in every imaginable way!

See what the website of Baylor College of Medicine tells about evolution of the ear from fish gills. "Millions of years ago marine animals had hearing organs that allowed them to detect sounds in the water. When land dwelling animals evolved they now had to detect environmental sounds that traveled through the air. This created a special challenge because their inner ears continued to be fluid filled. When sound passes from one media to another (as, in this example, from air to water) some energy is

reflected by the surface and does not pass to the new media. In order to reduce these reflections and maximize the transfer of sound energy from the air filled environment to the fluid filled inner ear, land animals evolved external ears as sound collectors and middle ears as mechanical force amplifiers. It is fascinating that the tiny bones in the middle ear appear to have evolved from gills that were no longer needed." [11]. This wonderful story tries to establish two things; one the ear evolved from the gills, and the other it evolved in the sequences and for the reasons given! Such stories are published only in evolutionary biology. One can never dream a story like this in a physics or chemistry journal. Mere statements like an animal evolved this part or that part from this organ or that organ of another animal do not make science. Even if we take for granted that gene mutations bring about evolution, we do not even know which genes are responsible for the development of gill and ear, how many genes took part in that evolution, and the sequence in which changes occurred, etc. But still we make very affirmative statements about evolution of an organ from another, which are indeed highly misleading. These statements give the impression that the claim that ear evolved from gills the way it was described is a scientifically proven fact.

The first impression one would get about these stories is that the authors narrate them with the kind of clarity as if they have seen them. We do not have tools and methods that would yield reasonably reliable and credible data to draw conclusions objectively on events assumed to have occurred over million year time scales. As a result, not even the biologists who propose those storylines would honestly believe that the information they give is true or can be true. But yet the journals publish such stories, people buy them at very high prices and the junk literature grows with time at Malthusian rate.

The data evolutionary biologists generate from their experiments are not examined with an open mind, but are interpreted on the belief that evolution had taken place. This is how voluminous evolutionary literature has come into existence. The literature does not establish evolution as a fact but only provides explanations for the evolution of biodiversity on the blind assumption evolution had happened. In this heap of evolutionary literature one finds to his disbelief that reports of hard evidence against evolution are sidelined. There are studies (e.g., on cell-directed mutagenesis, punctuated equilibrium, etc.), which clearly demonstrate that Darwinian model is highly misleading and inadequate to explain the origin of species. But those negative findings were even ultimately made to reconcile with Darwinism by the sheer dominance of evolutionist lobby.

Survival Strategies of Darwinists

Evolutionists' all-out efforts to establish evolutionary theory as a scientific theory have no parallel in the history of science. Scientists from no other field make such an organized effort to establish a theory. A widely adopted approach for this purpose is glorification of Darwinism and paying flowery tributes to Darwin. They also concoct stories of evolution caught in the act from observations of variability in populations. Further, these stories are published in the so-called high-impact journals which is another strategy adopted by the evolutionist lobby to promote the theory. The following discussion focuses on the contemporary scenario of marketing the theory.

Glorification of Darwinism

"Modern molecular evidence has boosted the evidence for evolution beyond Darwin's wildest dreams, and the fact of evolution is now as securely attested as any in science." [12]. "Evolution as a process that has always gone on in the history of

the earth can be doubted only by those who are ignorant of the evidence or are resistant to evidence, owing to emotional blocks or to plain bigotry. By contrast the mechanisms that bring evolution about certainly need study and clarification." [13]. In the last chapter of his book *The Blind Watchmaker*, Dawkins reiterates: "No serious biologist doubts that fact that evolution has happened, nor that all living creatures are cousins of one another". And he shifts the accent on the mechanism in the next statement: "Some biologists, however, have had doubts about Darwin's particular theory of how evolution happened." [14]. How evolution and descent with modification can be even assumed when it is not possible to propose a convincing mechanism for these phenomena? There is no other theory in science that is so controversial and so harshly questioned as Darwin's theory.

The Stanford Encyclopedia of Philosophy says: "Scientific theories are historical entities. Often you can identify key individuals and documents that are the sources of new theories – Einstein's 1905 papers, Copernicus' 1539 *De Revolutionibus*, Darwin's *On the Origin of Species*…Darwinism identifies a core set of concepts, principles and methodological maxims that were first articulated and defended by Charles Darwin and which continue to be identified with a certain approach to evolutionary questions….It will be noticed that there is no element of this theory that is incapable of empirical investigation – indeed by now the published *confirmatory* (italics added) studies of this process would fill a small library." [15]. This statement is against the truth. Darwin's idea of evolution still remains raw and unproven and with all natural evidence against it as discussed already. The opening remarks of the paper by Jermin *et al*. in *Science* (December 23, 2005 issue) will support this. "The origin and evolution of animals have remained hotly debated issues ever since Darwin drew

attention to the relative paucity of fossils from the Precambrian, which ended 543 million years ago (Mya)." [16]. The reader may be rather confused as to which of these statements is correct, the claim of the Stanford Encyclopedia of Philosophy or the latter? Where is that confirmatory literature which Stanford Encyclopedia talks about? Evolutionary literature is at best a collection of studies whose results have been interpreted assuming that new species evolve according to Darwinian concepts. No one has proved the theory as yet. It is this body of information that evolutionists treat as the proof of Darwinian evolution. Such evolutionists' claims can only help mislead the laymen.

Reviewing the evolutionary literature in 1999, Elizabeth Pennisi presented a very disappointing and unimpressive scenario of evolutionary science posing ultimately the question "Is it time to uproot the tree of life?" [17]. But Pennisi appeared to have forgotten all those evidences against evolution while writing again in *Science* in 2005 along with Elizabeth Culotta. They wrote (italics added): "The *big* breakthrough, of course, was the one Charles Darwin made a century and a half ago. By recognizing how natural selection shapes the diversity of life, he transformed how biologists view the world… Today evolution is the foundation of all biology, so basic and all-pervasive that scientists sometimes take its importance for granted… Each year, researchers worldwide discover enough extraordinary findings tied to evolutionary thinking to fill a book many times as thick as all of Darwin's works put together…*Concrete genome data allowed researchers to start pinning down the molecular modifications that drive evolutionary change in organisms from viruses to primates*." [18]. Evolutionists while bringing up such tall claims should have given specific supporting evidence generated from the studies. Can evolutionists name one natural evidence or a research paper

that reported a scientific finding which the scientific community has taken as confirmatory proof of evolution? The claims of evolutionists about the truth of evolution are mere propaganda. Here is another reference full of praise for Darwin: "The genius of Darwin…, the way in which he suddenly turned all of biology upside down in 1859 with the publication of the *Origin of Species*,…. It was Darwin's genius both to show how all this evidence favored the evolution of species from a common ancestor and to offer a plausible mechanism by which life might evolve." [19].

Even now studies to verify the assumption whether natural selection is the mechanism of evolution are conducted. Here is a study on evolution of genome-phenome diversity under environmental stress essentially testing that assumption (italics added). "The genomic era revolutionized evolutionary biology. The enigma of genotypic-phenotypic diversity and biodiversity, evolution of genes, genomes, phenomes, and biomes, reviewed here, …. We explored the following questions. (*i*) How much of the genomic and phenomic diversity in nature is adaptive and processed by natural selection? (*ii*) What is the origin and evolution of adaptation and speciation processes under spatiotemporal variables and stressful macrogeographic and microgeographic environments?... *Darwin introduced natural selection as the major mechanism of evolution. But what proportion of all genomic and phenomic evolutionary change results from natural selection?…. Can the study of origin and dynamics of genotypic and phenotypic diversity, within and between populations, demonstrate that natural selection is indeed the mechanism underlying the genetic and organismal basis of evolutionary change?* [20]. The question which the author asks at the end explicitly reveals that natural selection is still an

assumption and not a proven fact. If the mechanism is not proved, the theory to which it is associated is also not proved.

Misleading evolution examples of our time

Journals that publish works of high standard in other fields compromise a lot on the quality of papers they publish in evolution. If one can squeeze out a story supporting evolution, most likely it will be accepted by a biology journal. Examples of evolution of our time emerged as a result of that. A brief account of these stories is presented here.

The case of peppered moth: In Birmingham, England, two varieties of peppered moth existed; one was light coloured and the other dark coloured. Before 1845, light coloured moths were more predominant than dark coloured ones. With the advent of industrial revolution, tree trunks became more darkened because of the soot emanating from the industries. The dark tree trunks offered protection to dark coloured moths from its predator birds but light coloured moths being more visible and conspicuous against dark background became the target of the predators. By 1850 the population of light coloured moths decreased and that of dark coloured increased. This case is often cited as a proof of evolution.

The case of finches: The Galapagos Islands, the famous habitat of the birds known by the name, 'Darwin's finches' are situated in the Pacific Ocean as part of Ecuador. It was there Darwin made observations of the finches in support of natural selection, the mechanism of evolution. It also became the preferred location for further studies on evolution by later researchers. Long term studies, spanning over 30 years, were conducted by Peter R. Grant and B. Rosemary Grant of Department of Ecology and Evolutionary Biology at Princeton University, U.S.A., with the aim of getting sufficient information to generalize about the temporal pattern and predictability of basic evolutionary processes in unconstrained

natural population. They monitored the evolution of size and shape traits in two populations of Darwin's finches through annual sampling and measurement. The two predominant species were *Geospiza fortis* (medium ground finch) and *G. scandens* (cactus finch). Their main food items were seeds, flowers, etc. The former had a bigger beak and could crack larger and harder seeds whereas the latter had a smaller beak and hence was more efficient in handling smaller seeds. They found that mean body size and beak shape were significantly different at the end of the experimental period in 2001 from that at the beginning in 1973 in both species. Their study indicated that the observed differences in body characters illustrated evolutionary unpredictability, the changes in beak size occurred depending on the kind of seeds available to them in a changing environment influenced by drought etc., and the type of population that evolved particularly in respect of beak size depended on natural selection of the fittest [21].

Other cases: The other examples include evolution of mouth sizes of mud snails of the genus Hydrobia in Denmark that eat diatoms (diatoms are protected by a hard silicate shell and the size of the snail mouth determines what size diatoms it can eat), evolution of wingspan in bird-eating hawks and eagles of the family Accipitridae to enable them to carry their prey, and evolution of mouth sizes of desert seed-eating rodents of the families Cricetidae and Heteromyiidae, etc. [22]. Speciation in Cichlid fishes in the East African lakes is supposed to occur very rapidly [23]. Some cichlids have mouthparts suitable to crunch small crustaceans and some have mouthparts suitable to nibble algae. Some spectacular ones bite scales off the slides of other species of cichlids. Depending on whether these cichlid mutants bite the prey cichlids from right side or left side, the proportion of the right- and left-twisted scale-eating cichlids will change and the more successful species will

survive. Dozens of cichlid fish species are reported to have evolved in this way. Although this is considered a rapid speciation event, the authors rule out a similar event in other organisms inhabiting the same environment. The Nile crocodile has lived in the same waters as the cichlid fishes for the same period, but is still a single species. The human species is another that clearly indicates that rapid speciation is not a universal phenomenon [23].

Can we consider these cases as examples supporting Darwin's theory of evolution? The answer is No. Firstly, no new species has evolved; the structural changes are too small to be of any evolutionary significance. Secondly, the variations observed in morphological characters could not have been produced by random mutations because spontaneous mutation is a rare event but the structural changes occurred are very rapid. The differences recorded in the morphological characters in the species can be explained in a different way as follows.

Changes in morphological characters and behavioural patterns of species occur as a result of a change in the environment. These phenotypic changes are induced in accordance with the genetic program of the species. This must be seen as the natural strategy of the species to tide over an unfavourable situation. Broadly two categories of changes can be distinguished, namely a) change that occurs during the life of the individual and b) that occurs in a few generations. A typical example of the former is the phototropic growth pattern in green plants. A coconut palm under restricted light would take any shape during its growth that would enable it to intercept maximum solar energy under the situation. It is a common sight in coconut groves that a young palm under the canopy of older palms may have nearly horizontal growth of the trunk and a vertical upward growth in the open area at the periphery of the grove. Several such behavioural patterns can be observed

in the life of an individual in different species depending on the environment. These behavioural patterns cell-directed responses induced by the environment and they are expressed strictly conforming to the genetic program of the species. Hence depending on the environmental conditions, phenotypic expression also differs.

The second category is also dependant on the environmental factors. Resistance development in protozoan and other microbial parasites against antibiotics is an important proof of this phenomenon. Resistance of *Plasmodium* parasites that cause malaria to chloroquine drugs is a typical example [24]. Several plant pests and pathogenic (disease-causing) organisms that have developed resistance to several insecticides and fungicides are other examples. These cases illustrate that when the environmental condition changes as in exposure to antibiotics or pesticides, depending on the persistence of the adverse environmental stress, the genetic switch operates and changes the strategy to combat the adversity. The genetic change that occurs in such cases is a cell-directed one and not caused by any mutagen external to the organism. This argument is based on two kinds of evidence namely a) the change that occurs in the organism in response to a stress is not random but specific to counter the environmental stress experienced and b) cell-directed mutagenesis has been experimentally demonstrated [25, 26]. The work of Cairns *et al.* provided the experimental proof of directed mutagenesis [25]. Their results challenged the current belief that mutations arise continuously without any consideration of their utility. Using bacterial cells, these scientists demonstrated for the first time the existence of a mechanism in the cells by which they can choose which mutation should take place.

The examples of finches, mud snails, eagles and rodents given above illustrated that in all the cases, change occurred in

specific body parts to cope with the change in the size of the food materials. Resistance development in pests against certain pesticides was also a similar phenomenon in which specific mutation occurred to counter the toxic effect of the chemical. The specificity of the changes and the fact that no other heritable changes occurred in the organisms, were by themselves proof of the non-random nature of the mutations that had taken place. If it were the result of random mutations caused by the background radiation, etc., specificity could not be expected.

Viewed from this angle, the evolution events claimed in the examples of finches and other species are nothing but products of cell-directed changes in response to and in overcoming the adverse environmental conditions. This view is falsifiable and can be tested experimentally for the reversal of the change in character by restoring the original environmental condition. In all the cases considered above (except the case of peppered moth), the morphological changes that occurred in the organisms must be reversible in a few generations if original environmental conditions were restored. The data reported by Grant and Grant [21] support this view. Large annual fluctuations (increase or decrease) in beak and body sizes of finches observed by them are an indication of the rapid reversal of the changes in the characters depending on the environmental condition. Such oscillations are not expected in Darwinian model. As Darwin stated: "When a species disappeared from the face of the earth…the same identical form never reappears." [27]. Hence Darwinism rules out reversible changes in evolutionary process; evolution proceeds through irreversible changes in the existing species. Ignoring the most obvious and fitting explanation for the observed phenotypic variations as due to cell-directed mutagenesis, Darwinists go for the most inapt characterization as evolution events. It is indeed puzzling to see

why Darwinists do not consider the most suitable explanation for the observed results and choose instead the most unlikely one.

The case of peppered moth is not an example of change in any trait. In this case also, if the original environmental condition i.e. an environment without soot, were restored, the population of both light coloured and dark coloured moths would also have been reversed. This is not a case of directed mutagenesis as in previous examples but mere fluctuations in the populations of two varieties of a species caused by an environment-induced discriminatory event. It is also not a speciation event either. The same explanation applies to cichlid example also.

Silencing the critics

More often than not, critics of Darwinism are personally insulted by Darwinists. Darwinists also make derogatory and contemptuous remarks in an attempt to hush them up. Darwinists even go to the extent of ridiculing scientists of high standing. The profile of British philosopher Mary Midgeley, basher of ultra-Darwinist Richard Dawkins, that appeared in *Guardian* was conspicuous by the absence of praise and admiration of this respected woman who made the only mistake of questioning Darwinism during her philosophy career [28]. When biochemist Michael Behe, questioned Darwinism in his book *Darwin's Black Box: The Biochemical Challenge to Evolution* in defense of intelligent design, evolutionists countered: "Behe's knowledge of evolution is suspect. His knowledge of his own area of science is suspect. And the same is true when he moves into philosophy and theology." [29]. Pierre P. Grasse is the most distinguished of French zoologists, the editor of the 28 volumes of *Traite de Zoologie*, author of numerous original investigations, and ex-president of the Academie des Sciences. His knowledge of the living world is encyclopedic. He is an evolutionist. But when he made a frontal attack on all kinds of "Darwinism" by building a detailed and strong

empirical case against it in his book "*L'Evolution du Vivant*", Darwinists called him wrong. Grass has not gone wrong due to ignorance but as a well-known neo-Darwinist Dobzhansky observed, "the most distinguished of French zoologists did not understand the rules of scientific reasoning!" (exclamatory mark added) [30]. This remark speaks volumes about how evolutionists look at the critics of Darwinism.

Trivializing the evidences against Darwinism

The theory of punctuated equilibrium proposed by Eldredge and Gould literally shook the very foundation of Darwinism namely, phyletic gradualism. According to Prothero, their work not only showed that paleontologists had been out of step with biologists for decades, but also that they had been unconsciously trying to force the fossil record into the gradualistic mode [31]. In 1980, in an historic conference attended by a wide spectrum of researchers including geologists, palaeontologists, ecologists, population geneticists, embryologists and molecular biologists held at Chicago's Field Museum of Natural History to discuss macroevolution in the light of Modern Synthesis, Francisco Ayala, a major figure in propounding the Modern Synthesis in the United States made a generous admission that it was not possible to predict stasis from population genetics and that small changes did not accumulate [32]. The PE supports evolution but not gradualism which is the backbone of Darwin's theory. Naturally, the gradualists started a frontal attack at PE. The debate still goes on; it is a fight between two evolutionist groups one upholding natural evidence (i.e., supporters of PE) and the other (i.e., supporters of PG) rejecting the natural evidence. The minds of paleontologists were deep set in gradualism. As Eldredge and Gould observed, "the paleontologists were raised in a tradition inherited from Darwin known as *phyletic gradualism*, which

sought out the gradual transitions between species in the fossil record." [31].

The discovery of the phenomenon of cell-directed mutagenesis by Miroslav Radman was another blow to the theory of evolution. He showed that bacteria harboured a genetic program to make mutations. At that time, no one believed this heretical proposal [33]. Many evolutionary biologists were skeptical about this discovery because genetic mutation was considered as a random phenomenon. Obviously, the scientists refuse to think beyond Darwinism. In 1988 another report of cell-induced mutagenesis appeared in the literature which was more startling than Radman's. Molecular biologist John Cairns and his colleagues at the Harvard School of Public Health demonstrated induced mutations of various elements of the lac operon changes in *Escherichia coli* bacteria [25]. Their results showed that bacteria could induce specific mutations depending on their environmental conditions. As expected, the evolutionist lobby gave only a cold shoulder to this discovery. The discovery was directed to evolve a new concept called 'adaptive mutation'. What is now agreed upon is that not all regions are equally prone to mutation during stress. There are hot and cold regions for hypermutation. Even this contention goes against the spirit of evolutionary theory, which assumes equal chance for mutation for all the genes. Discussing the overall implications of these discoveries, Chicurel points out that the molecular biologists view the increased mutation rate as an engine of change as it generates diversity and that it did not evolve for the purpose of tuning evolution. But then most random mutations are harmful and how can it help the organisms survive overall? [33].

Accelerated mutation rates observed in the organisms during times of stress cannot be explained as caused by mutagens

operating outside of the cell; because in nature random chance mutations are extremely limited. Goodman [34] reviewed numerous research reports in this area and was firmly committed to the idea of self-induced genetic change. Barry Hall goes one step further in support of cell-induced mutagenesis: "Mutations that occur more when they are useful than when they are not: that I can document any day, every day, in the laboratory." [35]. Susan Rosenberg mentions the various names being used to describe cell-induced mutation. These are: adaptive, directed, Cairnsian, selection-induced, stationary-phase, stressful lifestyle-associated mutations (SLAM), and even "Fred" which a researcher gave with the hope that it would not inflame critics [36]. It is the kind of mutation whose name one dare not speak for fear of being guilty of heresy. Pennisi's remark in this context provides a true overall picture of what is happening in the evolutionary biology: "Genetic change, and hence the evolution of new species, is commonly thought to result from small, random mutations in individual genes, but a growing wealth of data emphasizes that the perception is wrong. Indeed the mutations leading to evolutionary change can involve the wholesale shuffling or duplication of the genetic material, changes that can affect the expression of genes or free up duplicated genes to evolve new functions. What's more, these changes may not be totally random….mainstream biologists need to consider genomes, and the kinds of evolutionary changes they undergo, in a much different light….Whether by radically rearranging themselves making use of mobile elements to generate variation, or causing certain stretches of DNA to mutate at high rates, genomes are showing that they can help themselves cope with a changing environment." [37]. The existence of cell-directed mutagenesis in the organisms belittles the importance of natural selection in the evolutionary process particularly because no one expected that

beneficial mutations could be induced from within the cell. The widely held view that genome evolution reduces random genetic mutations is now giving way to the diametrically opposite view that the most successful genomes are capable of undergoing rapid substantial mutation in times of need. The change in genetic make-up resulting from directed mutations is target-oriented and result-oriented. It is therefore more appropriate and straightforward to conclude that the genetic program carried in the cell is capable of bringing about those specific mutations. Instead, the evolutionists prefer to look for explanations from within the framework of Darwinian model. They keep on asking the question whether such mutation can still be due to random process. This religious attitude of the evolutionists towards Darwinism has done more harm than good to the progress of evolutionary science. As Goodman put it referring to cell-directed mutagenesis, the evolutionary theory must incorporate a new wrinkle [34].

Although the theories of PE and cell-directed mutagenesis are based on natural evidences and experimental findings, there has been hardly any effort to recast Darwinism in the light of the new knowledge. The reason is simple; there is no way of explaining the sudden appearance of many species in the fossil record (PE). On the other hand, cell-directed mutagenesis indicates the organism already has the program whose source cannot be explained. It can be explained only invoking God. Therefore these theories were sidelined to exist as satellites of Darwinism. Thus theories like PE and cell-directed mutagenesis have been blunted and are no longer projected as challenge to Darwinism. PE did not get its legitimate place in evolutionary biology despite the natural evidence and its strong scientific bend nor could it exert a decisive influence on the scientific community to reject gradualism, one of the basic tenets of Darwin's theory.

Any view that opposes Darwinism or its variant is bound

to be sidelined no matter how strong it is scientifically. Motoo Kimura's neutral theory was against natural selection. Orthodox Darwinists did not like Kimura's theory, because he maintained that all-powerful natural selection was not powerful at all. At the molecular level, the power of natural selection was greatly minimized. Molecular variation in proteins and DNA that had no influence on the fitness of the individual organism was observed, i.e., selectively neutral, questioning the importance of natural selection in the traditional areas of morphology and anatomy [38]. The voices of dissent are effectively muffled in the scientific community dominated by supporters of Darwinism. Critics of Darwinism are ridiculed or ignored and the theory with all its inadequacies is retained against natural facts and evidence. Although some of these 'heretical' ideas could have risen to the level of contenders vying for a place in evolutionary biology, for the simple reason that they are opposed to Darwinism marginally or substantially, they were marginalized. Ironically, they all seem to reconcile ultimately with the mother of all evolutionary theories – Darwinism, through some explanation or the other! The reaction of evolutionary biologists to the theory of punctuated equilibrium would clearly reveal this trend: "After an enthusiastic reception by journalists and some scientists, the theory was seized on by creationists as a sign that the theory of evolution was not universally accepted. Gould and Eldredge retorted that their model does not deny evolution but merely offers an alternative description of how it occurs. Since then, evolutionary biologists have debated the theory's validity without coming to a resolution." [39]. The remarks of Steven Rose, Professor of Biology at the Open University, U.K., in this context are very pertinent. "If we seek certainty in the world, the choices seem to lie between fundamentalist religions like Christianity and Islam, and the seemingly scientific fundamentalism of this version of Darwinism. Indeed there is

something of the religious in the way fundamentalist Darwinism cling to their certainties." [40].

Research publications

Evolutionary biology is no-man's space; anyone can propose anything without having the fear of somebody verifying it at a later date. It does not matter whether horse's teeth evolved because of the silica-rich grasses it had to eat, or the gibbons became tree-dwellers because of their slim body. They know these 'research papers' are not going to affect humanity in any way. But they ignore the more damaging side of these stories. The common man is misled by these stories and they believe evolution is a fact. Even if the whole evolutionary literature is withdrawn from the library shelves and further generation of evolutionary literature is stopped, humanity is not going to lose anything and would have advanced intellectually and technologically at the same rate as before. We are in fact wasting money, time and energy to create junk.

How valid are the methodologies used and interpretations drawn from evolutionary studies? Consider a study using large numbers of gene sequences from metazoans, including key understudied taxa [41]. The findings were: "Despite the amount of data and breadth of taxa analyzed, relationships among most metazoan phyla remained unresolved. In contrast, the same genes robustly resolved phylogenetic relationships within a major clade of Fungi of approximately the same age as the Metazoa. The differences in resolution within the two kingdoms suggest that the early history of metazoans was a radiation compressed in time, a finding that is in agreement with paleontological inferences. Furthermore, simulation analyses as well as studies of other radiations in deep time indicate that, given adequate sequence data, the lack of resolution in phylogenetic trees is a signature of closely

spaced series of cladogenetic events." The comments on the work by the reviewers run as follows [16, italics added]: "Is the conclusion drawn…sound? At first glance, it appears so, but can their conclusion stand up to closer scrutiny? Accepting that the genes analyzed by the authors evolved without gene duplication and that the amino acids are aligned correctly, most phylogenetic methods *assume* that the evolutionary dynamics of the 12,060 amino acid sites are independently and identically distributed, and that they evolved under the same stationary, reversible, and homogeneous conditions... *The assumptions arise from the need to render phylogenetic methods tractable and easy to use, and they are unlikely to be realistic*. To account for the observation that the sites in a gene may evolve at different rates, some phylogenetic methods are able to model rate heterogeneity across sites using a distribution….(the authors) used this approach for the whole alignment *but did not consider* that different parts of the alignment may require different distributions. *Nor did they consider* that some sites may vary nonindependently… and that the distribution of variable sites may vary across lineages and through time, an issue *that is notoriously difficult to resolve…. Violation of the assumed stationary, reversible, and homogeneous conditions may lead to…errors* in phylogenetic estimates…(The authors) recognized this potential source of error but used a test *that is known to be flawed*, even though better tests are known…. Furthermore, they chose a phylogenetic method that… is unsuitable: It *assumes* that the sites are independently and identically distributed, which they have already shown not to be the case. Moreover, they used a single Markov (probabilistic) model to analyze the alignment of amino acids …where it would have been better to use several Markov models to capture gene-specific differences in the evolutionary processes….(The authors)

used nonparametric bootstrap and posterior probabilities to gauge support for the pattern and order of speciation events (branches in their phylogenetic tree). *The former is widely recognized to be statistically unwise….Further, the increase in bootstrap value when more genes are included may be misleading…. The posterior probabilities of speciation events being correctly identified are also prone to error when the phylogenetic assumptions are violated in the sense described above.* In light of these concerns, are the conclusions …justified? Should we ignore their study? Most certainly not, because they have produced a wealth of data and have shown that it might just be possible that the fossil record can be reconciled with molecular data."

These comments expose the drawbacks of the paper but nonetheless tell us the story is still valid!

- In the normal course, in any other field the paper with so many flaws in the methods would have been rejected outright by the journal.
- The reviewer did not even agree with the major conclusions drawn by the authors. Yet they reconciled with all the flaws and accepted the findings.
- In addition to the drawbacks, the comments also expose the weaknesses of the assumptions involved in some of the methods used in evolutionary studies and limitations of the methods.

This example proves one thing; any results that support evolution no matter how they are generated are acceptable for publication. What is happening in evolutionary biology is deplorable.

Sunderland, an aerospace engineer, after conducting an extensive investigation of the fossil record found no evidence for

Darwin's gradualism such as transitional fossils (so-called missing links), *but he did find that such information was carefully hidden from the general public.* He conducted worldwide crusade against censorship of negative information about origins. His motto was "truth in education," and he opposed teaching of dogmatic philosophies in public schools [42]. Even worse had happened earlier. The notorious *Recapitulation Theory* advanced by Ernst Haeckel, a staunch Darwinist, is a brazen attempt to add credibility to Darwinism. Similarities in embryonic development often phrased as 'ontogeny recapitulates phylogeny' were propagated as evidence for evolution by descent with modification from a common ancestor. Ian Taylor observes: "Recapitulation Theory died about 1925 and that it has not appeared in school textbooks for years... On page 277 of my book, *In The Minds of Men,* the illustration shows exactly how Ernst Haeckel cheated in 1868 to make the facts fit his theory. This was exposed as fraudulent in 1874 by Wilhelm His, and the theory should have died then and there, not in 1925. For those critics who would side-track the issue by pointing out that textbooks have replaced the old nineteenth century engravings of the embryos with modern drawings, this is of no consequence whatsoever. The textbook *The Way Life Works* by Hoagland & Dodson, 1995 published by Ebury Press, London, still used Haeckel's drawings but took the trouble to colour them! Most readers will recall the famous row of embryos shown in the school textbooks. The usual argument for their retention is because although it is admitted that the stages of development (the vertical sequence) do not appear as Haeckel showed them, the horizontal likenesses of the early stages of the fish, the salamander, the turtle, the chicken the rabbit and the human are all virtually the same and illustrate embryonic homology. Michael Richardson, a lecturer and embryologist at St. George's

Hospital Medical School, London has recently exposed the so-called "embryonic homology" as another fraud. In his paper published in *Anatomy and Embryology* 1997, Vol.196 (2), p.91-106 he shows that the early embryonic stages of 39 different creatures including the fish, the turtle etc., are nothing like the same. Haeckel had simply repeated a series of look alike drawings for his 1874 Anthropogenie and, until Richardson reported the facts in 1997, no one had taken the trouble to actually check on Haeckel's work! May I suggest that this was because Haeckel's theory seemed such good evidence for evolution?" [43]. That sums up how evolutionary biology is made to suit the whims and fancies of the evolutionist lobby. It is 'science made to order' and it is science against humanity. It grows through the deliberate exploitation by the atheistic evolutionist lobby of our trust and confidence in science and the scientific community.

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6. DISSENTING VOICES FROM THE SCIENTIFIC COMMUNITY

In his book, *Darwinism: The Refutation of a Myth*, Soren Lovtrup, professor of zoophysiology at University of Umea, Sweden, points out a very important fact about the critics of Darwinism. He states: "some critics turned against Darwin's teachings for religious reasons, but they were a minority; most of his opponents…argued on a completely scientific basis." He goes on to explain so many reasons for the rejection of Darwin's proposal. "…first of all that many innovations cannot possibly come into existence through accumulation of many small steps, and even if they can, natural selection cannot accomplish it, because incipient and intermediate stages are not advantageous." [1]. Lovtrup's remarks in effect clears the misunderstanding of many people who think that the clerics alone are the doubting Toms of the theory of evolution. Scores of scientists have either rejected it or are skeptical about it. In the following discussion, the views of a few scientists are included.

Scientists on Evolution

In the mid-1800s, it was Darwin and the English biologist Alfred Russell Wallace who independently conceived of a natural mechanism for evolution which Darwin called natural selection. While Darwin continued to promote this idea, Wallace's interests veered off towards socialism, women's rights, extra-terrestrials, and communication with the dead. Most significantly, Wallace began to back off from the implications of his own theory. "He concluded that the mind could not be a product of evolution, and could only be the design of a superior intelligence. He rejected the idea that man was subject to "the blind control of a deterministic world." Darwin expressed some misgivings about Wallace's new

spiritualism. In a letter to his old friend he wrote, "I hope you have not murdered too completely your and my own child." [2]. Evolutionary literature is replete with arguments directed against natural selection. T. H. Huxley, the well-known protagonist of evolutionary theory who prided himself as "Darwin's bulldog" was not convinced of natural selection! Huxley approved the idea that evolution had occurred, but not natural selection as its explanation. However to please his friend, Huxley often reassured Darwin that he was indeed a champion of natural selection. Darwin was as ambivalent about his bulldog as the bulldog was about natural selection. In his autobiography, Darwin mentioned his defender T. H. Huxley only once, and then as a clever wit [3]. Huxley was not even a supporter of the theory early in his career but changed his mind later. One of the reasons attributed to this change was his eagerness to demolish anatomist Richard Owen, a compatriot of Darwin, who was instrumental for the establishment of Natural History Museum. Professional rivalry existed between Huxley and Owen who had worked with the fossil vertebrates that Darwin had brought back from South America on the Beagle and was not well disposed to the theory of evolution by natural selection [4]. Like Huxley, another Darwinist, geologist Charles Lyell never believed in natural selection [5].

Stephen Jay Gould noted how Darwin reacted to St. George Mivart's criticism that natural selection could not account for the accumulation of the incipient stages of useful structures. "Darwin offered strong, if grudging, praise and took Mivart far more seriously than any other critic...Mivart gathered, and illustrated "with admirable art and force" (Darwin's words), all objections to the theory of natural selection – "a formidable array" (Darwin's words again)." Gould goes on further: "…how do you get from nothing to such an elaborate something if evolution must

proceed through a long sequence of intermediate stages, each favored by natural selection? You can't fly with 2% of a wing or gain much protection from an iota's similarity with a potentially concealing piece of vegetation. How, in other words, can natural selection explain these incipient stages of structures that can only be used (as we now observe them) in much more elaborated form?" [6].

I. L. Cohen writes in his book *Darwin Was Wrong: A Study in Probabilities*: "'Survival of the fittest' and 'natural selection.' No matter what phraseology one generates, the basic fact remains the same: any physical change of any size, shape or form is strictly the result of purposeful alignment of billions of nucleotides (in the DNA). Nature or species do not have the capacity for rearranging them, nor adding to them. Consequently no leap (saltation) can occur from one species to another. The only way we know for a DNA to be altered is through a meaningful intervention from an outside source of intelligence: one who knows what it is doing, such as our genetic engineers are now performing in their laboratories." [7].

S. Kauffman notes: "It is fair to say that Darwin simply assumed that gradual improvement was possible in general... Darwin's assumption, I will try to show, was almost certainly wrong. It does not appear to be the case that gradualism always hold. In some complex systems, any minor change causes catastrophic changes in the behavior of the system. In these cases ... selection cannot assemble complex systems. Here is one fundamental limit to selection." [8].

Phillip E. Johnson, law professor of the Boalt Hall Law School on the UC-Berkeley campus, challenged the scientific establishment's assumptions about evolution and its place in the high school curriculum in his three books and numerous articles.

Johnson also made the case that the theory is a threat to morality and ethics. "Johnson has even earned the grudging respect of physicist – and outspoken atheist – Steven Weinberg who, in his book *Dreams of a Final Theory*, calls him "the most respectable academic critic of evolution." …. He clearly is incensed with the way the scientific community has dismissed any and all suggestions that evolution is less than demonstrated fact. According to him, facts are piling up on the other side. He argues, for example, that evidence suggests "DNA mutations do not create evolution in any significant sense." He contends that the fossil record shows a distinct lack of intermediate species and is skeptical – as Bryan was – that evolution could produce a complex organ such as the human eye. What good is "five percent of an eye" he wonders? Instead, he argues, the fossil record shows few transitional species and long periods of little change in speciation followed by sudden bursts, in which tens of thousands of new species appear in the blink of a few million years. Moreover, Johnson argues, "The fossil problem for Darwinism is getting worse all the time." [9].

Molecular biologist Michael Denton provides a deeply penetrating account of Darwinism in his book *Evolution - A Theory in Crisis.* He is an evolutionist; but his book raises serious questions about every facet of conventional theories on evolution. His revelations about the nature of DNA, amino acids and the cytochromes have caused a real consternation among biologists [10].

According to Gould, "The Modern Synthesis has broken down on both of its evolutionary claims – gradual allelic substitution and pure selection." [11]. Koestler described it as "citadel lying in ruins" [12].

Wilder-Smith with three doctorates in chemistry, pharmacology and medicine, devoted much effort in the study of

evidence about origin of life and species. A critic of evolution, he gives very convincing arguments in support of his position in his book *The Natural Sciences Know Nothing of Evolution* [13].

The author Samuel Butler dismissed Darwinism as a "nightmare of waste and death" and Bernard Shaw commented that if the theory were true "only fools and rascals could bear to live" [14].

Astronomer and philosopher John Herschel contemptuously referred to natural selection as "the law of the higgledy-piggledy" [15]. For many physicists, the idea that chance should play an important role in natural processes has been unpalatable. Einstein expressed this distaste in his statement, "God does not play dice." [15].

Fred Hoyle, the knighted astronomer and founder of the Cambridge Institute of Theoretical Astronomy, was a lifelong Darwin, Darwinism and evolution critic. He fought neo-Darwinists using mathematics as his weapon. According to him "the Darwinian theory is wrong and the continued adherence to it is an impediment to discovering the correct evolutionary theory." Hoyle objected to constructing protein phylogenies. The original situation of a protein is irrecoverable. The facts show "direct and obvious disproof of the whole concept of protein phylogenies." [16]. His remark about the chance origin of biological species is quite famous: "The chance that higher life forms might have emerged in this way is comparable with the chance that a tornado sweeping through a junk-yard might assemble a Boeing 747 from the material therein." [17].

Science journal *Nature* published a book review of *Mathematics of Evolution* by John Maynard Smith. Smith has been an authority in the field of evolutionary biology for decades. In the review he discussed the problem of non-functional

intermediates. He confirms that it is impossible for natural selection to climb the mountain, if there is no stepwise path up the mountain and that all genetic change has an advantage on its own. The theory that natural selection cannot jump over non-functional intermediates causes much trouble for neo-Darwinism [18].

Evolutionary biologist Massimo Pigliucci asks: "Is evolution by natural selection possible? Most biologists would consider this a rather anachronistic question, satisfactorily settled during the first few decades after the publication of the *Origin of Species* in 1859." He thinks organisms are too complex for mathematical treatment on which population genetics is based. Population genetics is used as the tool to theoretically (as opposed to empirical) demonstrate the power of natural selection to alter species. This treatment in fact led to the development of modern synthesis or neo-Darwinism. By the statement that organisms were too complex for mathematical treatment, Pigliucci was attacking the theoretical population genetics, the foundation of neo-Darwinism [19].

Stephen C. Meyer, Director of Discovery Institute's Center for Science and Culture challenged Darwinism from the biological information point of view. His review of the literature on the requirement of new information for the evolution of new species is perhaps the most comprehensive critique of Darwinism in recent times [20, 21, 22, 23, 24]. He focused the discussion mainly on the origin of biological information, a pre-requisite for emergence of new organisms. Some of the lines of argument in the review on this issue are reproduced here. "Gerd B. Muller and Stuart Newman argue that what they call the "origination of organismal form" remains an unsolved problem. They insist neo-Darwinism lacks any "theory of the generative" [21]. Muller and Newman are not alone in this judgment. In the last decade or so a host of

scientific essays and books have questioned the efficacy of selection and mutation as a mechanism for generating morphological novelty, as even a brief literature survey will establish. "Thomson… expressed doubt that large-scale morphological changes could accumulate via minor phenotypic changes at the population genetic level." [22]. "Miklos…argued that neo-Darwinism fails to provide a mechanism that can produce large-scale innovations in form and complexity." [23]. "Gilbert *et al*. …attempted to develop a new theory of evolutionary mechanisms to supplement classical neo-Darwinism, which, they argued, could not adequately explain macroevolution. As they put it in a memorable summary of the situation: "starting in the 1970s, many biologists began questioning its (neo-Darwinism's) adequacy in explaining evolution. Genetics might be adequate for explaining microevolution, but microevolutionary changes in gene frequency were not seen as able to turn a reptile into a mammal or to convert a fish into an amphibian. Microevolution looks at adaptations that concern the survival of the fittest, not the arrival of the fittest [24]. Though Gilbert *et al*. …attempted to solve the problem of the origin of form by proposing a greater role for developmental genetics within an otherwise neo-Darwinian framework…numerous recent authors have continued to raise questions about the adequacy of that framework itself or about the problem of the origination of form generally." [20]. Goodwin also raised the same doubt when he said: "…the origin of species – Darwin's problem – remains unsolved." [25].

Robert Macnab of Yale University concludes his elaborate and thorough review of the sensory and motor mechanism of the bacterium, *E. coli*, with the following thought-provoking remarks: "As a final comment, one can only marvel at the intricacy in a simple bacterium, of the total motor and sensory system which

has been the subject of this review…that our concept of evolution by selective advantage must surely be an oversimplification. What advantage could derive, for example, from a "preflagellum" (meaning a subset of its components), and yet what is the probability of "simultaneous" development of the organelle at a level where it becomes advantageous?" [26].

"Is Archaeopteryx the ancestor of all birds? Perhaps yes, perhaps no: There is no way of answering the question. It is easy enough to make up stories of how one form gave rise to another, and to find reasons why the stages should be favored by natural selection. But such stories are not part of science, for there is no way of putting them to the test." [27].

British philosopher Mary Midgley comments on Dawkins's work: "I'm not anti-science," she maintains. "What I object to is *improper science sold as science*. I understand Dawkins thinks he was talking about the survival potential of certain lines rather than the motives of the genes themselves, but I believe he is mistaken. Scientists in this country have little cultural overlap with the arts and humanities and ... they are unaware of when they start bringing their own political and psychological views into the argument. There's nothing wrong with scientists having such views as long as they are aware of what they are doing ... *Dawkins may argue that he is using selfishness as a metaphor but he must have been aware of how the concept might be interpreted and used*. *And Dawkins has to take some responsibility for that*." Denyse O'Leary comments on the report dispassionately. "Obviously, naturalism (materialism) is an impotent ideology if any genuine criticism, on whatever ground, is seen as "anti-science"…. You know the kind of thing we hear constantly from EP: If kids don't eat their greens, that's because "evolution" is protecting them from poisoning. Or if they do, well that must be because "evolution"

is encouraging them to have strong bodies. Yeah right….One reason I know Darwinism is on the way out is that Darwinists do not seem anxious to rise up, as a group, and drive this stuff off the scene. That fact alone implies that most arguments for Darwinism are similarly poorly founded (italics added)." [28].

Hannah Newman provides the verdicts given by a large cross section of scientists on the theory [29]. A small sample is reproduced here. "Prof. Michael Ruse, key speaker at the annual Conference of the American Association for the Advancement of Science (1993), was supposed to refute the creationist book, *Darwin on Trial* by Phillip Johnson (Berkley law professor). Instead, he shocked his colleagues by endorsing one of PJ's main points, that Darwinian theory is based as much on "philosophical assumptions" as on scientific evidence: "I'm no less of an evolutionist now than I ever was.... For many evolutionists, evolution has functioned as something with elements which are, let us say, akin to being a secular religion." He cited other leading Darwinists, including Julian Huxley, to back his "secular religion" comparison." H. Lipson, physicist says: "In fact, evolution became in a sense a scientific religion; almost all scientists have accepted it and many are prepared to 'bend' their observations to fit in with it.... To my mind, the theory does not stand up at all." [30]. T. Rosazak commented: "The irony is devastating. The main purpose of Darwinism was to drive every last trace of an incredible God from biology. But the theory replaces God with an even more incredible deity: omnipotent chance." [31]. Art Battson, professor, University of CA-Berkley reminds: "We must bear in mind that just because neo-Darwinian evolution is the most plausible naturalistic explanation of origins, we should not assume that it is necessarily true.... In retrospect, it seems as though Darwinists have been less concerned with the scientific question of accurately

explaining the empirical data of natural history, and more concerned with the religious or philosophical question of explaining the design found in nature without a designer. Darwin's general theory of evolution may, in the final analysis, be little more than an unwarranted extrapolation from microevolution based more upon philosophy than fact. The problem is that Darwinism continues to distort natural science." [32].

According to T.L. Moor, paleontologist: "The more one studies paleontology, the more certain one becomes that evolution is based on faith alone." [33]. John T. Bonner observes: "We [evolutionists] have been telling our students for years not to accept any statement on its face value but to examine the evidence, and therefore it is rather a shock to discover that we have failed to follow our own sound advice." [34]. Bounoure, past Director of Research at the National Center of Scientific Research, France, stated: "Evolutionism is a fairy tale for grownups. This theory has helped nothing in the progress of science. It is useless." [35]. G.A. Kerkut, biochemistry professor at the University of Southampton states: "The philosophy of evolution is based upon assumptions that cannot be scientifically verified... Whatever evidence can be assembled for evolution is both limited and circumstantial in nature." (cited in *Biology*, Keith Graham *et al.*, p.363). John Ambrose Fleming, President British Assoc. for Advancement of Science: "Evolution is baseless and quite incredible." [36]. "[Neo-Darwinism is] effectively dead, despite its persistence as textbook orthodoxy." [37].

Professor Wolfgang Smith, a mathematician, who has held faculty positions at the Massachusetts Institutes of Technology and University of California (UCLA) states: "I am opposed to Darwinism, or better said, to the transformist hypothesis as such, no matter what one takes to be the mechanism or cause (even

perhaps teleological or theistic) of the postulated macroevolutionary leaps. I am convinced, moreover, that Darwinism, in whatever form, is not in fact a scientific theory, but a pseudo-metaphysical hypothesis decked out in scientific garb. In reality the theory derives its support not from empirical data or logical deductions of a scientific kind but from the circumstance that it happens to be the only doctrine of biological origins that can be conceived with the constricted Weltanschauung [worldview] to which a majority of scientists no doubt subscribe." [38].

R. Merle d'Aubigne, head of the Orthopedic Department at the University of Paris says: "The origin of life is still a mystery. As long as it has not been demonstrated by experimental realization, I cannot conceive of any physical or chemical condition [allowing evolution]….I cannot be satisfied by the idea that fortuitous mutation…can explain the complex and rational organization of the brain, but also of lungs, heart, kidneys, and even joints and muscles. How is it possible to escape the idea of some intelligent and organizing force?" [39].

Lemoine, a former president of the Geological Society of France and director of the Natural History Museum in Paris, as well as the editor of the *Encyclopedie Francaise*, declares that, "The theories of evolution, with which our studious youth have been deceived, constitute actually a dogma that all the world continues to teach: but each, in his speciality, the zoologist or the botanist, ascertains that none of the explanations furnished is adequate….the theory of evolution is impossible." [40].

Zoologist G. A. Kerkut with the Department of Physiology and Biochemistry of University of Southampton, England, concludes his book *Implications of Evolution* assessing the scientific merit of seven basic assumptions of evolution: "The first assumption was that non-living things gave rise to living material.

This is still just an assumption…. There is, however, little evidence in favor of biogenesis and as yet we have no indication that it can be performed…. It is therefore a matter of faith on the part of the biologist that biogenesis did occur….The second assumption was that biogenesis occurred only once. This again is a matter for belief rather than proof….The third assumption was that Viruses, Bacteria, Protozoa and the higher animals were all interrelated…. We have as yet no definite evidence about the way in which the Viruses, Bacteria or Protozoa are interrelated. The fourth assumption was that the Protozoa gave rise to the Metazoa….Here again nothing definite is known….The fifth assumption was that the various invertebrate phyla are interrelated…. The evidence, then for the affinities of the majority of the invertebrates is tenuous and circumstantial; not the type of evidence that would allow one to form a verdict of definite relationships. The sixth assumption [is] that the invertebrates gave rise to the vertebrates…. As Berrill states, "in a sense this account is science fiction." We are on somewhat stronger ground with the seventh assumption that the fish, amphibia, reptiles, birds, and mammals are interrelated. There is the fossil evidence to help us here, though many of the key transitions are not well documented and we have as yet to obtain a satisfactory objective method of dating the fossils…. The evidence that we have at present is insufficient to allow us to decide the answer to these problems." [41].

What is given above is a small sample of the voices of dissent. The number of scientists opposing evolution is on the increase. It must be against this backdrop one should view the frantic efforts of evolutionists for survival. It is clear from the foregoing that there are an overwhelming number of card-carrying biologists, other scientists and philosophers who do not subscribe to Darwin's idea of evolution. This in itself is the living proof that

Darwinism is not a scientifically proven fact. No scientist will speak of a theory as non-science without being one hundred percent certain. If there is an iota of scientific merit in a theory, a scientist will prefer to remain silent rather than attacking it. In spite of that, Darwinist lobby spares no effort to aggressively promote Darwinism as scientific theory and mislead the public. With the kind of resources, print and non-print media at their disposal and a large blind following to boast of, Darwinists are efficiently selling Darwinism as science. In the process, they only exploit and capitalize on the trust of the people in science. All these efforts of Darwinists must be seen as part of a larger materialist agenda aimed to widen the support base for the evolutionary theory and atheism.

Darwin's Confessions

Although evolutionists blindly believe in Darwinism, Darwin openly tells us the grievous shortcomings of his theory. One should acknowledge the honesty of Darwin that is conspicuously lacking in his followers.

Darwin admits that his book is a compilation of his views and statements based on observations and discussions with other naturalists and specialists in allied fields. "This Abstract, which I now publish, must necessarily be imperfect, I cannot here give references and authorities for my several statements; and I must trust to the reader reposing some confidence in my accuracy…. No one can feel more sensible than I do of the necessity of hereafter publishing in detail all the facts, with references, on which my conclusions have been grounded; and I hope in a future work to do this." [42]. The most important message in this statement is that Darwin does not claim what he proposed is a scientific theory. But surprisingly, biologists not only accepted Darwin's idea of origin of species but also elevated it to the status of a scientific

theory. The theory rules the roost in biology even after one and a half century. It is indeed puzzling and strange how views and statements can form the basis of a scientific theory. "Several cases also, could be given, of occasional and strange habits in certain species, which might, if advantageous to the species, give rise, through natural selection, to quite new instincts. But I am well aware that these general statements, without facts given in detail, can produce but a feeble effect on the reader's mind I can only repeat my assurance, that I do not speak without good evidence" [42, p. 176-177]. Regrets and assurances cannot make science and it is not the reader's belief or non-belief what goes into the making of science. Science should be factual and agreeing with natural evidence. The enormity of the weakness and in many cases, total failure of his ideas to explain the origin of natural diversity of flora and fauna might have shaken Darwin's own confidence in the theory. Some of the self-contradicting statements and remarks made by him point to that. "I have hitherto sometimes spoken as if the variations so common and multiform in organic beings under domestication, and in a lesser degree in those in a state of nature had been due to chance. *This, of course, is a wholly incorrect expression*…" [42, p. 111, italics added]. Darwin wrote later in his another book, *The Descent of Man* that: "I admit…that in the earlier edition of my *Origin of Species* I probably attributed too much to the action of natural descent of the survival of the fittest." [43]. "But then arises the doubt, can the mind of a man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions? ..... Would anyone trust in the convictions of a monkey's mind, if there are any convictions in such a mind." [44]. Charles Darwin stated his own theory as "grievously hypothetical". Saying "The eye to this day gives me a cold shudder"

Darwin couldn't possibly believe the eye had evolved by natural selection. He openly admitted his doubts saying that "this seems, I freely confess, absurd in the highest possible degree." But he thought of the same about something as simple as a peacock's feather, which, he said, "makes me sick". [45].

In a letter to Asa Gray, Harvard biology professor, Charles Darwin wrote: "I am quite conscious that my speculations run quite beyond the bounds of true science." [46]. Fourteen years after the publication of *The Origin of Species*, Darwin wrote to a friend thus: "In fact the belief in Natural Selection must at present be grounded entirely on general considerations….When we descend to details, we can prove that no one species has changed…nor can we prove that the supposed changes are beneficial, which is the groundwork of the theory. Nor can we explain why some species have changed and others have not." [47]. What more the scientific community needs to reject the theory?

Truly the natural scenario with its multifaceted scheme of things is far more complex and diverse than the concept of natural selection can account for. Why the scientific community still holds on to this theory appears to be rather mysterious! The failure of the predictions, contradicting explanations, inability to explain many biological phenomena, lack of scientific basis, and above all Darwin's own confessions are more than sufficient to reject the theory. As Ken Hsu, the evolutionist professor at the Geological Institute in Zurich, E.T.H., and former president of the International Association of Sedimentologists stated: "We have had enough of the Darwinian fallacy. It's about time we cry: 'The Emperor has no clothes.'" [48].

Darwinism – The Last Straw of Atheists

In spite of the aggressive promotion of Darwinism through

science curriculum in schools and universities, scientific journals and magazines and a variety of print and non-print media the acceptability of the theory among the masses is surprisingly on the slide. "Most people are familiar with the dismal statistics, showing how a large fraction of Americans at all educational levels do not accept the theory of evolution [49], how efforts to teach evolution often fail to have an impact [50], and how constant vigilance is required to keep evolution in the public school curriculum [51]. Even worse, most people who do accept the theory of evolution don't relate it to matters of importance in their own lives. There appear to be two walls of resistance, one denying the theory altogether and the other denying its relevance to human affairs." [52]. The Harris poll indicated that nearly two-thirds of the U.S. adults believe that human beings were created by God [49]. That would mean Darwinists' false propaganda of evolutionary theory as an established scientific theory is not having the expected impact on common man. Think of the volume of junk generated by evolutionists lying in libraries and in the brains (memories) of scientists, biology teachers and the taught. Neither science nor the society at large is benefited by this (false) information. If anything, it will only jeopardize people's trust in science.

From what is happening in evolutionary biology it is but legitimate to suspect there is deliberate attempt to tailor evolutionary science to suit the materialist agenda particularly towards atheism. Not long ago when big bang theory was proposed, there were blatant attempts to crush the theory for the one and only reason that it indicated a beginning for the universe and time which in turn implied the existence of Creator God for the universe. Stephen Hawking touches upon this most heinous issue in his famous book *A Brief History of Time*: "Many people do not like the idea that time has a beginning, probably because it

smacks of divine intervention…There were therefore a number of attempts to avoid the conclusion that there had been a big bang. The proposal that gained widest support was called the steady state theory…Another attempt to avoid the conclusion that there must have been a big bang, and therefore a beginning of time, was made by two Russian scientists, Evgenii Lifshitz and Isaac Khalatnikov, in 1963." [53]. The steady state theory won wide acclaim and acceptance, and held the centre stage for nearly two decades. However, it had to bow out of scientific arena at last for want of sufficient supporting evidence. Increasing scientific evidence for the big bang cosmology and the success of its predictions also weighed heavily against the steady state theory. Thus as of today, the theory which recognizes the existence of God survives. Deliberate efforts to develop alternate theories are still going on.

Is history repeating with Darwinism now? The atheistic forces are once again at work to challenge the existence of God by propagating the theory of chance evolution of biological organisms. Since the scientific community has rejected the steady state theory, we can indeed predict Darwinism will also have the same fate. While big bang theory points to the need for a Creator God, Darwinism argues for the non-requirement of God for the creation of living organisms. In other words, modern science propagates need of God for the creation of the nonliving components and non-requirement of God for the remaining part of the universe – the living components. Science loses its rational lustre on account of this contradictory stand. The ever-increasing opposition and resistance to Darwinism from within and outside the scientific community must be reckoned as the unmistakable signal of its impending end. These two cases – the rejection of steady state cosmology by the scientific community paving way

for the acceptance of big bang theory which establishes the hand of God in the creation of the inorganic universe and the current plight of Darwinism fighting for survival on its deathbed for disregarding the need for divine hand in the creation of biological organisms clearly reveal that divine science (true science) alone will prevail and false science (devil's or satanic origin) will meet its natural death.

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7. DARWINISM AND RELIGION

Charles Darwin was brought up in a religious mould. He was baptized on November 17, 1809 at St. Chad's church in Shrewsbury. His mother Susannah used to take him to services at the Unitarian church in High Street. Although she died when Darwin was only eight, he continued to attend church on a regular basis with his sisters. He was sent to Rev. Case's day school at St. Chad's for one year, and afterwards was sent to Dr. Butler's Shrewsbury School where he studied until the age of sixteen [1].

Darwin's Views about Religion

In his published works he was rather silent about his views on religion. He was an orthodox Christian at least up to the middle of his twenties. We get glimpses of his views about God and religion from the numerous letters he wrote to many of his friends, well-wishers and critics. His religious beliefs had not eroded during his voyage on the Beagle. He used to get laughed at by his colleagues for quoting from the Bible and speaking on morality. It was about the age of 30, he began to lose his faith in the Bible. Darwin recollects his attitude towards religion during the voyage thus: "During these two years [October 1836 to January 1839] I was led to think much about religion. Whilst on board the 'Beagle' I was quite orthodox, and I remember being heartily laughed at by several of the officers (though themselves orthodox) for quoting the Bible as an unanswerable authority on some point of morality. I suppose it was the novelty of the argument that amused them. But I had gradually come by this time, *i.e*. 1836 to 1839, to see that the Old Testament was no more to be trusted than the sacred books of the Hindoos. The question then continually rose before my mind and would not be banished, – is it credible that if God were now to make a revelation to the Hindoos, he would permit it

to be connected with the belief in Vishnu, Siva, etc., as Christianity is connected with the Old Testament? This appeared to me utterly incredible." [2]. He became incredulous of the Biblical messages and started thinking that Christianity could not have been a divine revelation. But still he did not lose his faith completely. For some time, he had mixed thoughts and swung between belief and non-belief. But gradually at a slow rate he became a total disbeliever. "…that the Gospels cannot be proved to have been written simultaneously with the events, – that they differ in many important details, far too important, as it seemed to me, to be admitted as the usual inaccuracies of eye-witnesses…I gradually came to disbelieve in Christianity as a divine revelation. The fact that many false religions have spread over large portions of the earth like wild-fire had some weight with me.…But I was very unwilling to give up my belief; I feel sure of this, for I can well remember often and often inventing day-dreams of old letters between distinguished Romans, and manuscripts being discovered at Pompeii or elsewhere, which confirmed in the most striking manner all that was written in the Gospels. But I found it more and more difficult, with free scope given to my imagination, to invent evidence which would suffice to convince me. Thus disbelief crept over me at a very slow rate, but was at last complete. The rate was so slow that I felt no distress….Another source of conviction in the existence of God, connected with the reason, and not with the feelings, impresses me as having much more weight. This follows from the extreme difficulty or rather impossibility of conceiving this immense and wonderful universe, including man with his capacity of looking far backwards and far into futurity, as the result of blind chance or necessity. When thus reflecting I feel compelled to look to a First Cause having an intelligent mind in some degree analogous to that of man; and I deserve to be called a Theist. This conclusion was strong in my mind about the time, as

far as I can remember, when I wrote the 'Origin of Species;' and it is since that time that it has very gradually, with many fluctuations, become weaker. But then arises the doubt, can the mind of man, which has, as I fully believe, been developed from a mind as low as that possessed by the lowest animals, be trusted when it draws such grand conclusions?" [2].

While developing the theory of natural selection, he even wrote of religion as a tribal survival strategy, though he still believed that God was the ultimate lawgiver. Although Darwin had lost all faith in Christianity with the death of his daughter Annie in 1851, he continued to give support to the local church and help with parish work. On Sundays he would go for a walk while his family attended church [3].

By that time his views about living beings also changed drastically becoming more biased against theism. "The old argument from design in Nature, as given by Paley, which formerly seemed to me so conclusive, fails, now that the law of natural selection has been discovered. We can no longer argue that, for instance, the beautiful hinge of a bivalve shell must have been made by an intelligent being, like the hinge of a door by man. There seems to be no more design in the variability of organic beings, and in the action of natural selection, than in the course which the wind blows." [2]. He still considered the possibility of a creator God albeit hesitatingly because it was not possible for him to decide whether the argument had any real value. "I may say that the impossibility of conceiving that this grand and wondrous universe, with our conscious selves, arose through chance, seems to me the chief argument for the existence of God; but whether this is an argument of real value, I have never been able to decide. I am aware that if we admit a first cause, the mind still craves to know whence it came, and how it arose. Nor can I overlook the difficulty

from the immense amount of suffering through the world. I am, also, induced to defer to a certain extent to the judgment of the many able men who have fully believed in God; but here again I see how poor an argument this is. The safest conclusion seems to me that the whole subject is beyond the scope of man's intellect; but man can do his duty." [2]. Yet he preferred to call himself agnostic. "What my own views may be is a question of no consequence to any one but myself. But, as you ask, I may state that my judgment often fluctuates...In my most extreme fluctuations I have never been an Atheist in the sense of denying the existence of a God. I think that generally (and more and more as I grow older), but not always, that an Agnostic would be the more correct description of my state of mind." [2].

That sums up what his religious outlook was. There were rumors that he had reverted to Christianity during his last days. Stories like the "Lady Hope Story" which claimed he had converted on his sickbed were propagated by some Christian groups following his death, to the extent of becoming urban legends. However, such claims were refuted by Darwin's children and dismissed as false by historians [3].

With the publication of *The Descent of Man* in 1871 in which he argued that man descended from monkey, the evolutionary theory became much more questionable. "To his critics, Darwin robbed man of his special place in the universe – and they saw the implications as profoundly troubling. Man was the product of too much randomness – our chances of being on this planet remote in the extreme. If the universe were replayed a billion times, in none of those replays would humans likely have emerged. A single break anywhere on the long chain that led to us – and there have been several periods of mass extinctions – and there would have been no human history." [4]. Charles Darwin

understood better than anyone else how his theory of origin of new species threatened the prevailing religious beliefs. He referred to himself as "the Devil's Chaplain" and complained that by publishing the theory he felt "like confessing a murder." He knew especially well how his ideas troubled his pious wife [4].

Darwinism challenged the religion, particularly its theory of creation. Darwinism offered the materialist world the much-awaited 'explanation' for the origin of species without the need of a Creator. Although his theory did not prove the non-existence of God, the implication of chance element precluded the necessity of a Creator or intelligence behind the origin of biological organisms. There are at least eighteen places in his book *The Origin of Species* where he comments against independent creation of species, indirectly questioning the existence of God. "How inexplicable are those facts on the ordinary view of creation! Why should the brain be enclosed in a box composed of such numerous and such extraordinarily shaped pieces of bone?" [5, p. 357]. Darwin did away with determinism. While Laplace maintained that with a complete knowledge of the current world and all its processes it would be possible to predict the future to infinity, Darwin professed the universality of randomness and chance throughout the process of natural selection [6]. As succinctly epitomised by Ernst Haeckel, one of the expounders of the theory of evolution, "Darwin's theory of evolution and natural selection revolutionised biology. The implication of this postulated struggle for existence seemed to undermine the basis of religion. . .no miracle, no creation, no creator" [7]. Darwin's description of his theory as "the devil's gospel" [8] fits very well.

The Evolution-Religion Conflict

The first verbal battle between religious leaders and Darwinists took place at a meeting of the British Association for

the Advancement of Science in Oxford on June 30, 1860. Darwin was not present in the meeting but the most outspoken protagonist of Darwin's ideas and a naturalist, Thomas H. Huxley (who coined the word "agnostic") was present. Huxley defended evolutionary theory and attacked adherence to scripture as a scientific document. The program turned nasty when Bishop Samuel Wilberforce insisted that Huxley state "whether his relationship to apes came by way of his mother's or his father's side of the family. Huxley rose in anger to proclaim he would rather claim the ancestry of an ape than that of someone who used his position to push religious nonsense in what should be a serious scientific forum. While emotions roiled, Robert FitzRoy, Darwin's former ship captain on the Beagle, roamed the halls, holding up a Bible and shouting to all within range, "The Book! The Book!" Each side left the meeting claiming victory…" [4]. The review which appeared in *The Times* delighted Darwin very much and he was also excited by a scientist insulting a bishop in a public forum. "From all that I hear from several quarters, it seems that Oxford did the subject great good. It is of enormous importance the showing the world that a few first-rate men are not afraid of expressing their opinion. I see daily more and more plainly that my unaided book would have done absolutely nothing." [9].

Scopes case or 'monkey trial' of July 1925 was the first legal battle waged between Darwinists and creationists. William Jennings Bryan, three-time Democratic candidate for President and a populist led a Fundamentalist crusade to remove Darwin's theory of evolution from science curriculum in the USA. By 1925, Bryan and his followers had succeeded in getting a legislation introduced in fifteen states banning teaching of evolution in American classrooms. Tennessee enacted a bill introduced by John Butler making it unlawful "to teach any theory that denies the story of

divine creation as taught by the Bible and to teach instead that man was descended from a lower order of animals." John T. Scopes was a biology teacher in Dayton, Tennessee, U.S.A. He was arrested for teaching evolution and held for a jury trial in the Rhea Country Courthouse. At the conclusion of the Scopes trial, Judge John Ralston remarked: "there are two things in this world that are indestructible. "One is truth and the other is the Word of God." Left unsaid was his implication that there could be no conflict between these two indestructible things [4]. John Scopes was convicted and fined, not for teaching evolution in itself, but for his presentation of Darwin's views on the descent of humanity. After the Scopes trial, the laws banning the teaching of human evolution remained in effect for more than 40 years. But teaching students about Darwin's general principle of evolution, with reference to non-human organisms, has never been illegal in the United States [10]. In 1968, the U.S. Supreme Court overturned an Arkansas state law banning the teaching of evolution. And in 1987, it ruled against balancing evolution lessons by teaching creationism [11].

Attack on evolution is on the rise once again in the USA. This is even more surprising in the wake of the declaration of John Paul II in 1996 that evolution is "more than just a theory" and compatible with Christian faith. A survey published in *Scientific American* reveals that the doctrine of creationism – which holds that the origins of humanity and the Earth are recent and divine – is spreading in the world's greatest technological nation at a disturbing rate. More and more states are restricting the teaching of evolution in schools (*The Observer* dated February 24, 2002). The article continued: "... the newspapers in Mississippi wrote that this proved the Pope was senile and should be ignored". School boards in Kansas, Pennsylvania and other states in America had either restrained the teaching of evolution in science classes

or introduced alternative explanations that were essentially religious in character. Creationism took a different form in the garb of "intelligent design (ID)". The teaching of the ID in classrooms was legally challenged in 2005. Eight families sued the Dover Area School District where the teen students were told about ID before their regular biology lessons on evolution. The families alleged that the policy violated the constitutional separation of church and state. Intelligent design concept lost the battle because the idea was not scientifically based. "The rising tide of evangelical Christianity and its alliance with a conservative political movement seemed to foreshadow a national suspicion of science or a deep confusion about what science is or isn't, or possibly both. The Dover decision was a decisive, elegantly crafted resolution of the question before the court. Was intelligent design (ID) a new proposal, generated by the school board for consideration by students and teachers as an alternative to evolution, based on scientific grounds? Or was it instead a Trojan Horse proxy for the older notion of creationism? Judge Jones said, in no uncertain terms, that ID was not science, but rather creationism redux, and that it did not belong in a science classroom." [12]. Donald Kennedy, Editor-in-Chief of *Science* hailed the verdict as "good news". [12].

Nature wrote an editorial apprehending the growing influence of the ID movement in schools and universities in the U.S. and Europe: "This is bad news for researchers. Unlike 'creation science', which uses the Bible as its guide, intelligent design tries to use scientific methods to find evidence of God in nature. This approach makes it less theologically heavy-handed than its predecessor, but it also poses a threat to the very core of scientific reason. Most contemporary researchers believe that it is better to keep science and theology firmly separated. Most

theologians would agree: intelligent design is not a part of Catholic doctrine, for example." [13]. From an Islamic perspective, Darwinism as a theory advocating purposeless chance evolution of biological organisms by a hypothetical mechanism called natural selection is conspicuously at loggerheads with the theistic doctrine of the religion.

Negative Social Impact

Darwin's theory had devastating influence on shaping thoughts of many historical figures. Adolf Hitler's belief in evolution led to his barbaric genocidal actions. To him evolutionary implications of "lower races" came in handy to justify the mass murder of ethnic groups. He refused to accept that all human beings were created equal. This conviction led him to resort to discriminatory treatment of different groups of people. The following excerpt taken from his famous book "Mein Kampf" points to that. "Every crossing between two breeds which are not quite equal results in a product which holds an intermediate place between the levels of the two parents. This means that the offspring will indeed be superior to the parent which stands in the biologically lower order of being, but not so high as the higher parent. For this reason it must eventually succumb in any struggle against the higher species. Such mating contradicts the will of Nature towards the selective improvements of life in general. The favourable preliminary to this improvement is not to mate individuals of higher and lower orders of being but rather to allow the complete triumph of the higher order. The stronger must dominate and not mate with the weaker, which would signify the sacrifice of its own higher nature. Only the born weakling can look upon this principle as cruel, and if he does so it is merely because he is of a feebler nature and narrower mind; for if such a law did not direct the process of evolution then the higher development of organic life

would not be conceivable at all." [14]. Also, joining the ranks of wicked evolutionists, were Russian communist leader Leon Trotsky (1879 -1940), and Russian dictator and revolutionist, Joseph Stalin (1879 -1953). Stalin is regarded as the worst mass-murderer the world has ever seen. [14]. The case of Ota Benga, a black pygmy, who was caged in the Bronx Zoo in New York under the label "ancient ancestors of man" provides another horrific side of the influence of Darwinism on human thought. This issue was discussed in chapter 3.

The moral values and social ethics have degraded very much due to the influence of Darwinism. The theory misleads and deters one from religion. In an article published in *Reason* evolutionist Ronald Bailey explains why so many non-creationist political conservatives are abandoning belief in evolution. Incredibly, he states that the reason to reject evolution is to preserve the moral order resulting from religious values by quoting Irving Kristol: "If there is one indisputable fact about the human condition it is that no community can survive if it is persuaded – or even if it suspects – that its members are leading meaningless lives in a meaningless universe."[15].

Darwinism was also responsible for the rise of ruthless capitalists that flourished in the late 1800s and early 1900s. Leading "robber baron" capitalists were influenced by the Darwinian view that the strong eventually will overcome the weak. A key aspect of this brand of capitalism was its extreme individualism which indicated that other persons count little, and that it is both natural and proper to exploit "weaker" companies. Their faith in Darwinism helped them to justify this view as morally right and completely natural [16]. Gertrude Himmelfarb's view was much more critical. "The theory of natural selection, it is said, could only have originated in England, because only laissez-faire England provided the

atomistic, egotistic mentality necessary to its conception. Only there could Darwin have blandly assumed that the basic unit was the individual, the basic instinct self interest, and the basic activity struggle. Spengler, describing the *Origin* as: "the application of economics to biology," said that it reeked of the atmosphere of the English factory . . . natural selection arose . . . in England because it was a perfect expression of Victorian "greed-philosophy" of the capitalist ethic and Manchester economics." [17]. The present-day world scenario of occupation of other countries by developed nations especially the U.S.A. and its allies through military intervention leading to genocide and heavy casualties also reflects Darwinian wisdom. What we see today is the modern form of expression of survival of the fittest. Peace and harmony are at stake so long as the devil's gospel prevails.

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