

Cultural evolution

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Introduction

Anthropology may be said to have begun with the concept of evolution. To understand this we must see the social context within which Anthropology came up as a discipline. Though many would claim that Anthropology truly began with the early Greek philosophers and scientists, it came up as a discipline in its true right only after the Renaissance, about the 1600s. At this time, all the different countries in Europe and England were trading and warring.

Due to the essentiality of having raw material and the exigencies of supplying and selling industrial produce at cheap rates in bulk, a political economy evolved that took charge of new areas found around the world, took over its government and through it became controllers of trade and commerce in these areas. The taking over of the government was additional to this major enterprise.

In the course of this exercise, the Europeans came into contact with the Other. They saw other cultures and peoples and came into contact with religions, cultures, and governments different from their own. In order to understand this strangeness, scholars began to sift through the works of earlier travelers and missionaries. To understand this strangeness and this Other-hood of a culture that was alien to theirs from this data where inaccuracies inevitably crept in, they had to recourse to their own cultures in order to formulate a model. This is the overall model that was ultimately created through the ideas prevalent in Western society at that time. It came to be known in anthropology as Classical Evolutionism.

The early origins of classical evolutionism

The idea of social evolution came from the biological model of evolution. However, the particular kind of approach that was used by social scientists depended more on the other theories that were prevalent at the time. The word 'evolution' comes from the Latin *evolvere*, literally meaning "an unrolling." Earlier to Darwin it was used in the idea of "progress" and often used in literature and poetry. Lamarck used the word "transmutation". Lyell uses the word 'evolution' only once to indicate a progress of speciation.

Jean Baptiste Lamarck (1744-1829) was a botanist. He began his researches by going into a theory of linguistic origins of human beings. Continuing this work in the biological arena, he tried to find out how life had changed over the years from simple to ever more complex forms. Linnaeus had claimed that the origin of life and their variety was due to the mechanism of a creator, or god. Lamarck contradicted Linnaeus by claiming that the origin of life, its complexity and its variety could be explained by looking at the interaction of biological forms with their environment. He then went on to state that it was the inheritance of acquired traits that had led to the modification of organisms from the simple to the complex. This was the theory believed by most biologists until the remarkable theory of evolution of Darwin came to the fore.

In 1798, Thomas Robert Malthus published *An Essay on the Principle of Population*. He addressed himself to Condorcet's outline of the intellectual progress of Mankind criticized. Shocked at the result of the French Revolution, Malthus criticized Condorcet and ridiculed his idea of progress. Malthus realized that the productive capacities of a society increase in arithmetic progression while the reproduction of its members in geometric progression. Eventually this results in wholesale destruction of life to match up with available resources.

Up to this period the Biblical theory that the earth began and changed in welter of catastrophes was very popular. Archbishop Usher had calculated from the bible that the earth had come into existence in 4,004 B.C. James Hutton, in a book written in 1785, claimed that the Earth was much older. He also claimed that regular changes occurring over long periods of time were responsible for changes (uniformitarianism) rather than sudden changes over short periods (catastrophism). Hutton was not taken seriously at the time.

The fact that the entire plant and animal kingdom got classified by Carolus Linnaeus (1707-78) was another factor that clearly demarcated the problem of origins of the humans. Though Lateral Gene Transfers point out that no system of classification can be said to be accurate or true, a complete system seemed to emerge from Linnaeus in his *Systema Naturae* in 1758 (Gould; 2000(c)).

In 1830-33, Charles Lyell (1797-1875), a Scottish barrister-turned-geologist, wrote the *Principles of Geology*. On the cover was an image of the three Roman columns of the so-called Temple of Serapis (actually a marketplace) at Pozzuoli, near Naples. He used marks on the pillars to note tidal changes for over two thousand years. He claimed that instead of catastrophic changes that suddenly changed the earth, small incremental

and gradual changes occurring over a very long period of time created the present appearance of Earth (Gould; 1999(c), 1999(d)).

Lyell's three volumes of *Principles of Geology*, which were meticulously detailed studies of soil, rock and fossil samples from all over the world, demonstrated that the earth had changed gradually into its present form over a very long period. In contrast to catastrophism, this theory became known as gradualism. Lyell became the Father of Geology.

The biblical theory claimed that cataclysmic changes like these caused earthquakes, floods, volcanoes and shiftings of the earth created the present topography of earth was inherently stable unless disturbed by these catastrophic changes. This approach was known as catastrophism. This was the prevalent view at the time with Georges Cuvier as Lyell's primary rival. Lyell was also supported by Charles Babbage, the inventor of the computer. Babbage had cited Darwin's work also.

Further, the Bible claimed that human beings were created by God along with the rest of the universe in seven days. The fossil record which had so far been collected was claimed to have been put there by god himself during the creation of the earth. This theory is known as Creationism. Such creationists include James Dwight Dana (1813-1895) who had written works like *Corals and Coral Islands* and *Manual of Geology* (Gould; 1996). Another creationist was Sir Charles Bell (1774-1842), who published the *New Idea of Anatomy of the Brain* in 1811 and *The Hand: Its Mechanism and Vital Endowments as Evincing Design* in 1833 (Gould; 1993).

Not so long ago, in the first half of this century, the Creationists fought a running battle against the Darwinian theory of evolution in America. John Scopes was a teacher who insisted on teaching Darwin's theory in school in spite of all opposition. The matter went to court. At the Scopes' trial, the case for Darwin was put forward by the brilliant lawyer Clarence Darrow, who fought against William Jennings Bryan in 1925 at Tennessee. The Darwinian theory won – but only by a margin. Even now, as of 1999, the Kansas school board delegates evolution to an optional subject (Gould; 2000(a)). In the present context, the Theory of Intelligent Design was also thought to be unworthy of being included as a part of school text since it was a disguised form of Creationism.

Jean-Baptiste Lamarck (1744-1829) became a professor of insects, worms and microscopic animals at the Museum d'Histoire Naturelle in Paris in 1793. He invented the term *invertebrate* and also the term *biology*. His system of classification began with a linear system but ended in 1920 after many modifications into the classic branching taxonomic trees that we see today (Gould; 1999(a), 1999(b)). He had indicated that the characters acquired in one generation would be inherited by the next following the principle of use and disuse. This was tested again by Kammerer in his laboratory in more recent years, but he was plagued by the falsification of data by one of his laboratory staff. This was recorded by Arthur Koestler in *The Case of the Midwife Toad*. Koestler claimed that a further and more exhaustive test of the theory was required before it was declared a failure.

The Copernican theory of the universe had demoted the central position of Earth in the Universe to not only one of group of planets circling the sun, but at the corner of a very large Milky Way Galaxy. Lyell's theory displaced the Biblical theory of the stable earth into the quicksand of long periods of time. The Darwinian theory displaced the centrality of human beings to a mere accident in an ongoing evolutionary process.

The Beagle sailed on a scientific expedition to explore the coastline and the islands of South America, New Zealand and Australia for a period of five years from 1831 to 1836. The official naturalist aboard the Beagle was Robert McCormick. The captain of the ship had been suspected periodic bouts of insanity. To keep him under observation, the doctor suggested a companion. This companion was Darwin.

Charles Darwin (1809-1882) collected a large amount of information relating to living things during this voyage. Darwin read Lyell's three-volume textbook on Geology during this journey and turned up with theories that were "half out of Lyell's brain." He also spent a majority of his life collecting information to prove his theory of evolution. By 1838, Darwin had completed his work. However, he did not publish his work in apprehension of the attack that would be launched on him by proponents of the Biblical Special Theory of Creation. Even up to the mid-1950s, creationism was taught in institutes in America. They also gave degrees, diplomas and certificates in the field of creationism.

In 1855, Alfred Wallace (1823-1913) sent Darwin his paper on a theory of evolution. Darwin found the theory to be identical to his own. With Wallace's persuasion, Darwin read Wallace's and his own paper in a meeting of the Linnaean Society in 1858. The papers were published the following year. Darwin's book, *Origin of Species by Means of Natural Selection* was also published in 1859. For many, this work signified the beginning of Anthropology.

According to Darwin, nature provides a means of understanding the everyday and gradual nature of the evolutionary process. Following from Lyell, Darwin claimed that nature consisted of a very large variety of species. These varieties were more or less adapted to the environment in which they lived. The earth was in a state of constant change. As the environment changed species that were better adapted survived. The other species became extinct. Therefore there was a constant fight, a struggle for survival, among species. In this fight there could only be a survival of the fittest leading to new species which were better adapted to the environment by a process of natural selection. In time this new species developed variants and the cycle continued. As for human beings they were not chosen by god as a subject worthy of special creation as noted down in the Bible. Human beings were merely descendants of the apes due to the gradual process of natural selection. This last was perhaps the unkindest cut of all. To bring exalted humans to the level of the beasts was bitterly and savagely attacked by Victorian England. However, Darwin used it only once, as the last word of his book:

“Whilst this planet has gone cycling on according to the fixed law of gravity, from so simple a beginning endless forms most beautiful and most wonderful have been, and are being, evolved.” (in Gould; 2000(a))

Natural selection as a process led to a few assumptions regarding human behaviour that was to cause untold misery in the years to come.

- 1 The right of the powerful was strongly reinforced. This meant that power could be used against the weak and the helpless to subjugate and rule over them.
- 2 It began to be believed that the most powerful were also the most advanced and successful on a linear evolutionary scale. Hence, everything anyone else did was wrong. This led the people to ignore the advancement of the weak and the poor, believing them to be the victims of the process of natural selection.

These assumptions were implicitly or explicitly incorporated into the theories of social scientists and philosophers over the years.

However, to relentlessly claim that Darwin was a racist would be wrong. He would perhaps never agree with the scientifically conducted social Darwinism of Spencer, for in the *Voyage of the Beagle*, commenting on slavery, he said, “If the misery of our poor be caused not by laws of nature, but by our institutions, great is our sin” (in Gould; 1991: 19).

Unilinear evolutionism

One can then see that cultural evolution began as an evolutionary science. However, before we take a look at what cultural evolution is all about, what does the ‘e’-word really mean?

The origin of the word ‘evolution’ comes from the Latin ‘evolutio’, where ‘e’ means ‘out of’ and ‘volutus’ means ‘rolled.’ Aristotle, Leibniz (1898), Immanuel Kant and Hegel, all used it in the sense of only internal forces that help in the unfolding of a developmental process, often of a biological organism or type. There was no effect of external forces or the environment. It was used in the same sense by Arthur O. Lovejoy in 1936. It was first used in biology by Charles Bonnet in 1762. He was a preformationist, i.e., he believed that the developmental stages are preformed in the foetus and unfolds over time. This is opposed to the epigeneticists, who claim that new forms are created as the foetus grows. This was used in the sense used by Bonnet also by Miall (1912), Osborn (1927) and Fothergill (1952). Lamarck did not use the word in his major work in 1809. Auguste Comte used it frequently from the 1830s but his definition was very general. Thus, up to the 1850s the word was uncommon in England. John Stuart Mill used it only once in 1843. Darwin used it in *The Origin of Species* only in the 6th edition (1872) without defining it.

Unilinear evolution is the belief that evolution occurs only in one way. It has only one major pathway, somewhat like a ladder, whose rungs are climbed as species evolve

to the next 'higher' stage. The present idea of evolution sees the process more like a bush with many branchings than as a ladder.

Herbert Spencer (1820-1903) wanted to compile a compendium of a unified science and philosophy as a text for later generations to follow. He did more to advance Darwin's views than anyone else at the time. Darwin's theory of natural evolution was applied in the social sphere by Spencer, who was also greatly influenced by Comte.

Spencer begins his *First Principles* (1862) with the thought that complete knowledge and truth are unknowable. Therefore, philosophy should concern itself with what it can know. He says that:

"Knowledge of the lowest kind is un-unified knowledge; science is partially-unified knowledge; philosophy is completely unified knowledge." (Spencer in Durant; 1929: 366)

Spencer sees the futility of human effort in everything, since the end everything ends in death and decay. This approach is closer to that of Schopenhauer. However, Spencer's reading of philosophy and science was very sketchy. Spencer accepted Darwinian evolution with some reservations. He also accepted a modified form of Lamarckism.

Spencer worked from 1837 to 1841 as an engineer and a technician on a railway. He simultaneously studied natural sciences and mathematics. Then he worked for the press for many years. In 1853, he came into a legacy from an uncle, thus becoming an independent scientist and publicist. He refused all official honours. His books included *First Principles*, *Principles of Biology* (two volumes, 1864 and 1867), *Principles of Psychology* (three volumes, 1855-1872), *Principles of Sociology* (three volumes, 1876, 1882 and 1896), an independent book *The Study of Sociology* (1873) and *Principles of Ethics* (two volumes, 1892, 1893). In fact, Spencer was convinced that evolution was not just one stage after another in linear progression. He claimed that, "social types, like types of individual organisms, do not form a series, but are different stages in the evolution of one form" (in Kon; 1989: 45).

In such analyses he showed his evolutionism to be closer to Lamarck than to Darwin. He was also not in agreement with Comte on the grounds that Comte was trying to fulfill an evolution of ideas rather than of biological forms. Comte was also more messianistic, creating a rule of law through a positivistic religion that he could not but disagree with. He showed that reason and instinct, mind and life, are one. He also tried to unify all of science and philosophy into a coherent whole. The psychology of the mind is seen to become more and more complex through Lamarckian evolution. Continually modified organs through use are eventually inherited.

After this excursion into biology, Spencer moves on to sociology. Giving parallels from biological life, he shows how organs become more and more complex, differentiate in their functions, separate, and are again integrated into the whole. This idea of increase

in complexity was given to Spencer by Karl E. von Baer. He took this approach and applied it to societies. Like Montesquieu, he related forms of government with specific ways of life. From a military state based on status, evolution brings in a state of contract with a much more lenient government. From the belief of the subjection of an individual to the state, the state now exists for the individual.

The best moral would be every man to be “free to do that which he wills provided he infringes not the equal freedom of any other man”. Hence, people, who are fit, survive; the unfit suffer. The application of the Darwinian theory to societies came to be called “social Darwinism”. In this he was more Darwinian than in his biology. From a large ethnographical set of examples, he shows the evolution of domestic relations, ritual institutions and political institutions. He admitted that society was not just an aggregate of individuals but that really existed as an entity in itself, unlike the nominalists. To show this, he compared society with a biological organism. For instance, a society grew and increased in size during the greater part of its existence, and as it grew it became more complicated with differentiation of functions, just like an organism. Further, the structures and functions of societies developed in their interactions. Thus, each organism could also be seen as a society which consisted of separate individuals. Even if life stopped in both, its constituent parts could continue, for a brief period, to continue to live. The living elements of a society were not a constituent whole like an organism but formed a discrete whole, with its living elements free and dispersed. The capacity of a society to be conscious in all of its parts was also unique to it, for only a small part of an organism was capable of thinking (Kon; 1989).

Any developed society had three systems of organs. The supporting system was the organisation of parts that provided nutrition in a living organism and produced necessary products. The distributing system connected different parts of the social organism through the division of labour. The regulatory system, embodied in the state, subordinated the parts to the whole. Six institutions, or parts or organs were identified as domestic, ritual, political, church, professional and industrial. In each of these parts, there was an evolutionary sequence. As he himself puts it (1863: 216):

“Evolution is a change from an indefinite, incoherent homogeneity, to a definite, coherent, heterogeneity; through continuous differentiation and integration.”

Evolution was the same everywhere. First a simple organ multiplied numerically. Then it became more complex and differentiated. Due to this a regulatory mechanism became necessary. In time, the regulatory mechanism itself became more differentiated. For Spencer, evolution was a smooth, automatic process that went on. However, Spencer later went on to believe in a more differential concept of progress rather than a more universal one. He could also see regressive processes. Hence, social progress became more divergent in his later reading than a unilinear one. From him, we learn to use the concepts, ‘system’, ‘structure’, ‘function’ and ‘institution’ in a systematic manner.

From Comte, Spencer borrows the equilibrium of altruism and egoism. This implied that political rights were a delusion, only the economic rights prevail. His society

is based on the formation of a heterogeneous collectivity of free individuals. However, it is doubtful whether such a collectivity is more stable than a homogenous collectivity.

In Spencerian social Darwinism, evolution and progress become synonymous terms. In fact the term “survival of the fittest”, attributed to Darwin, were originally Spencer’s as applied to humans. According to him, if left to compete among themselves, the most intelligent, ambitious and productive people would win out. He fought against state protection of the individual and the weak (Welfare); he could never understand or tolerate the paternalistic values of the state, or any interference by the state in individuals’ affairs. This included a free-market economy. He claimed that helping the poor and the weak dragged down human beings to the lowest common denominator and stopped it from progressing and rising. Big capitalist businessmen found it suited their needs and were in support of such a philosophy. For instance, John D. Rockefeller taught it to young children in Sunday school. The English-Hegelian reaction against Positivism caused his popularity to wane. As liberalism became a social norm, his popularity grew anew.

His division of things into Inorganic, Organic and the ultimate Superorganic has traces of Hegelian dialectics. The organized collectivities of free individuals (societies) are organized by a Superorganic law of development. This entry of the Superorganic as the ultimate synthesis of biological and social life was the Spencerian form of Comte’s positivistic religion. Ultimately, these societies are arranged at different levels or states of development, at similar levels of complexity and order.

Herbert Spencer was unable to complete his attempt at the unification of all knowledge. Death overcame him too early. The theories that he had proposed became extremely popular in Europe in England and in America, especially after he visited there in 1882. 17 volumes of his *Descriptive Sociology* were published. He was very popular till 1927 but by 1937 Talcott Parsons declared that, “Spencer is dead.” His theories were used by a whole group of social evolutionists, who used Spencer’s theory in a piecemeal manner. They did not have his holistic, unifying outlook. However, the later theorists saw his outlook as being too anti-humanistic and the support of the rich and the powerful may not benefit society as a whole. As a result, they were accepted by John D. Rockefeller, among others. Further, ability only partly accounts for personal success. Some of Spencer’s concepts of evolution were written by him long before Darwin published his major works on evolution.

John Jacob Bachofen (1815-1887) was a German lawyer who wrote *Das Mutterrecht* (‘The Mother-Right’) in 1861. He was deeply influenced by Savigny. For him, matriarchy and matriliney were primitive stages in his unilinear evolutionary scheme that preceded patriarchy and patriliney. His early stage was a modification of Hobbes’ ‘war of all against all’, which included promiscuous sexual relations and a thoroughly materialistic, nature-bound existence. From Savigny, Bachofen borrowed the idea that symbolism embodied the external, positive law. Each of the progressive stages in his evolutionary scheme are linked up with relationships based on survival in nature, sexual access, child-raising and social authority.

During sexual promiscuity, the earliest stage, women were treated as sex objects, and kinship was traced through the mother. Next, a Gynocracy or matriarchy arose where the female deities were worshipped, the left side was stronger than the male right side, the moon became more important than the sun, earth was more important than the ocean, sorrow rather than joy, darkness rather than light, death than life, and the youngest born (ultimogeniture) than the oldest (primogeniture). After this the males came into ascendance.

Sir Henry James Sumner Maine (1822-1888) wrote his best-known work in 1861. It was called *Ancient Law* – this was not surprising since he was a lawyer. Maine believed in making historical comparisons of various societies. He traced the origin of kinship through a patriarchy as in the *patria potestas* in Roman society where a patriarchy used to exist. From this base, he conjectured the evolution of society up to the present. He saw stages of development of evolution of kinship organisation to territorial organisation, status to contract, civil law to criminal law and decree to case law to true legislation. He seemed to talk of human societies without knowing much details of them.

In comparison to Bachofen, Maine only indirectly borrows from Savigny through John Austin. He borrows extensively from Montesquieu and Jeremy Bentham. He could not accept Montesquieu's assertion that climatic factors affect social behaviour.

Maine picks apart society into its constituent parts in order to understand them better. He prefers those parts of social life that have not yet been touched upon by historians or legal chroniclers. In doing so he finds an evolutionary shift from status law to contract law. Maine's analysis of kinship passed on through Rivers to Radcliffe-Brown. In 1869 he became the Vice-Chancellor of Calcutta University. He also wrote *Early Law and Custom* in 1883, *Village Communities in East and West* in 1871, *Lectures on Early History of Institutions* in 1875 and *Popular Government* in 1890. Unlike Bachofen, Morgan, McLennan and Tylor, he claimed that patriliney and patriarchy preceded all other family types.

John Ferguson McLennan (1827-1881) wrote his theories in a work entitled *Primitive Marriage: An Enquiry into the Origin of Form of Capture in Marriage Ceremonies* in 1865. Using the comparative method on a comprehensive scale, he proposed an evolutionary scheme involving stages of marriage, government and inheritance. He derived the history of humanity through Tylorian survivals from the present back to the early stages. For Maine, society began with the family. For McLennan, it began with the totemic group and continued to the family. He wrote *Studies in Ancient History* in 1876.

He showed through his studies of mock capture of brides in societies that there must have been a period when there were fewer women, infanticide and the practice of capturing brides. Based on this, he saw the evolutionary scheme of promiscuity, to polyandry (of two types: i. Tibetan or fraternal, and ii. Nair or non-fraternal) to levirate and polygyny. Later, he saw matrilineal descent as preceding marriage by capture and the last stage being monogamy. Evolution was also seen to occur by him from matriarchy to

patriarchy. Also, the importance given to private property in the current context led to a decrease in kinship relations outside of the nuclear family, leading to a decay of tribe and other kinship groupings. While McLennan criticized Morgan's classificatory and descriptive systems of kinship, claiming that they merely were for addressing people and had no bearing on family and descent, Morgan criticized McLennan's endogamy and exogamy divide, showing that both could exist side by side. Morgan also pointed out that it was bilateral kinship rather than matrilineal kinship which determined the entire idea of kinship in early societies.

Sir Edward Burnett Tylor (1832-1917) was born on 2nd October in Camberwell, England of Joseph Tylor and Harriette Skipper, both Quakers. He wrote *Anahuac: Mexico-Mexican, Ancient and Modern* in 1861 and *Researches into the Early History of Mankind and Development of Civilization* in 1865. By then he followed the idea of there being a psychic unity of mankind that enabled them to create similar things in similar locations that led to parallel or independent evolution.

Tylor wrote his famous work called *Primitive Culture* in 1871. He worked out an evolutionary sequence leading from animistic religions in the past to the present stage of an undefined God (as in Christianity). Initially, the earlier inhabitants, called 'primitives' by the classical evolutionists, thought of a body-soul and ghost soul. The latter was linked to the belief of either taking interest in the living and in their former homes, in metempsychosis or the transmigration of souls in to human beings, animals, plants and things, and the idea of special residence in another world. This was, in turn, linked to continuance theory (a life similar to life on earth being carried out after death) or retribution theory (the ghost souls being punished or rewarded based on their life on earth). A concept of benevolent (good) or malevolent (evil) spirits also came about through this. Related to this was the concept of spirit possession and also fetishism (a term originally used by Auguste Comte but seen by Tylor as an aspect of animism). Fetishism saw its worshipping of an object, whether living or non-living, to be close to idolatry. This animistic belief would lead later to polytheism. This would lead later to the concept of one great god or monotheism.

He was painstaking in his researches but his data was highly suspect. It seems that his social analysis of religion became a little lost while he looked closely at the mind of primitive man through his study of their religion. One of his concepts was that of 'survivals'. According to him, even after a society had evolved to the next stage in the unilinear evolutionary sequence, it retained certain traits that were markers of earlier stages. These were the survivals. He combated the idea through his writings on religious concepts and practices that the so-called savage peoples had degenerated more than the civilized people from an original state of grace (as stated in the Bible). For Tylor, these so-called "savages" were intellectuals just like anyone else, grappling with their problems but handicapped (as was Tylor in his intellectual life) by limited information.

One concept of his, which has lasted over the years and is used even now, is this definition of culture:

“Culture or civilization, taken in its wide ethnographic sense, is that whole which includes knowledge, belief, art, morals, law, custom, and any other capabilities and habits acquired by man as a member of society.” (Tylor; 1871: 1)

He wrote *Anthropology: An Introduction to the Study of Man and Civilization* in 1881. Tylor was the first to hold a chair in anthropology at a British University, being appointed first as a lecturer then a reader in 1884 and finally a professor in 1895 at Oxford. His interest in anthropology developed from his travels in the United States as a young man, where he visited an Indian Pueblo, Cuba, and Mexico, where he saw the blend between Spanish and Indian culture as well the achievements of the ancient Aztec culture.

The articles that he wrote were varied. He wrote on the possible historical connection between the games of pachisi (played in India) and patolli (played in ancient Mexico), the origin of games of Cat's Cradle, the structural connections between post-marital residence, descent and certain other customs such as in-law avoidance and the couvade (the confinement of the child's father following birth). In 1889, he wrote an essay on A Method of Investigating the Development of Institutions: Applied to the Laws of Marriage and Descent published in *Journal of the Royal Anthropological Institute of Great Britain and Ireland*. He took data from 282 societies correlating post-marital residence patterns with the custom of in-law avoidance, showing that matrilineality and matrilocality preceded patrilineality and patrilocality. In earlier matrilineality, they needed no recourse to anything but as men asserted their right in patri-matrilineality the practice of couvades came up. In patrilineality, this practice sometimes carried on as a survival. Thus, Tylor explained the evolution of patrilineality from matrilineality.

Robertson Smith (1846-1894) wrote a book entitled *Kinship and Marriage in Early Arabia* in 1885. He took over McLennan's unilinear evolution lock, stock and barrel and tried to apply it to ancient Arabian society. He saw society as a structural whole, its parts contributing to put it together.

The unilinear evolutionists had certain common deficiencies. None of them had conducted any fieldwork and had never visited any of the communities that they speculated about. Sir James George Frazer (1854-1941) was once asked whether he had visited any of these communities he had written about. His reply is now famous: 'God Forbid!' Due to this, the unilineal evolutionists were also known as armchair anthropologists. Frazer was born on January 1 to Daniel Frazer and Katharine Brown. He went to Trinity College, Oxford on a scholarship in 1873, which was renewed till his death.

By 1915, Frazer had catalogued in his twelve volumes of *The Golden Bough* a very large number of practices, customs and rituals from around the world. He was convinced that all primitive people had been irrational and were guided by superstition rather than empirical knowledge. He thus showed an evolutionary scheme from magic to religion to science. Thus, even today, science was accepted with as much faith as magic had been accepted earlier. So magic manipulates while religion supplicates. Further, he

gave a two-point definition of sympathetic magic and the two laws were those of similarity (two like things affect each other) and contagion (two things which have been together continue to be affected equally even when they are apart). He wrote many more books and became the last bastion of British classical evolutionary thought, who had also worked extensively among the classics.

He used the comparative method that was the mainstay of the classical evolutionists of the period. According to Frazer, totems originated from a belief in the soul. Tabooing the object that was housing the soul of an ancestor led to totemism. Totemism was transferred from the female side to the male side. Later, as it became hereditary, it led to exogamy, to prevent inbreeding. Magic was governed by the principle of similarity and contact. The law of similarity gave rise to homoeopathic magic or imitative magic. The law of contact gave rise to contagious magic. However, the insufficiency of magic led to a belief in superhuman or supernatural powers and thus to religion. From this came religious specialists and divine kings. Their departed souls were regarded as Gods. He called magic as the bastard sister of science or a pseudo-science.

R. R. Marrett (1866-1943) was born in London and was a student of Tylor. He contributed much to Tylor's popularity by working on the issues that interested Tylor and also putting together a bibliography of Tylor. He wrote *The Threshold of Religion* in 1909 in which he transformed animism to a force which led to a guidance and control of primitive man's destiny through natural phenomena which he termed animatism. He kept in touch with the works of other anthropologists like Sarat Chandra Roy also.

Adolf Bastian (1826-1905) was a German who had preferred the concept of the psychic unity of mankind as a means of studying aspects of human origins of its lifeways. In 1860 he wrote *Der Mensch in der Geschichte* and in 1895 *Ethnische Elementargedanken in der Lehre vom Menschen*. He claimed that very few humans had original ideas, a concept called elementary thought pattern. They find expression in folk ideas. Such folk ideas together form geographical provinces. This became something like a culture area. Migration and diffusion ensured that these areas did not remain pure. His collections were accumulated in the Museum für Völkerkunde in Berlin which he had established. With Rudolf Virchow, he set up the German Society for Anthropology. He was also the founder of the German African Society through which he published the journal *Zeitschrift für Ethnologie*.

The data base on which these social evolutionists depended was derived from a series of sources;

- a) It was derived from the early/classical works from Greece and Rome. The historians and travellers' accounts of the time were accepted unquestioningly. These works were often seamen's stories, tall tales and myths. It must be remembered that writing myths about people and gods was a valid mode of pleasing the gods in Greek society. Later, these myths became incorporated as inextricable parts of the social fabric. The use of such myths to speculate is one thing, to go one step further and claim it to be rightful 'conjectural history' is entirely another.

- b) Accounts written by theologians and missionaries who had travelled to these regions were also used. These accounts were peppered by the Christian beliefs of the period as well as other social prejudices.
- c) The same accusation can be levelled to the use of traveller's accounts as valid information.
- d) At the time, London had a great variety of carnivals, fairs and festivals, which became increasingly popular until the two world wars. These 'shows' demonstrated in cages the existence of weird and unusual flora, fauna and human beings. These human beings were often hideously deformed. Often it was claimed that such a deformity was a hallmark of a certain community in a remote area. The spiel or patter used by the 'carnies' gave detailed accounts (mostly fictional) of savage lifestyles. Such human types also included the steatopygia of the Bushmen of the Kalahari desert, which was shown to the crowds by bringing in a naked woman of the community. All of this affected the writers of the period.

When these issues are coupled with the conclusions drawn in social evolutionary terms of Darwinian fitness, it led to the labelling of other cultures as being 'savage', 'primitive', barbarian, uncivilized and the like. The world has yet to be rid of the pejorative usage of these terms.

Further, the evolutionary scale was biased and ethnocentric in showing Western culture as the epitome of the evolutionary process. Coupled with the results of the industrial revolution, this was to prove a philosophical boon for colonizers and tyrants of all sizes, colours and nationalities. They gave a bad name to the comparative study of cultures, because such a theory compared not the advantages or disadvantages, but the way the culture was in a more primitive stage as compared to those in the West.

Lewis Henry Morgan

Lewis Henry Morgan (1818-1881), a lawyer from New York State, settled in Rochester, New York. This place was close to the settlement of Iroquois Indians. He acted on their behalf in a land grant case. After the success of this lawsuit, the Tonawada Reservation adopted Morgan. He also became friendly with a young Seneca Indian law student called Ely Parker, who later became Commissioner of Indian Affairs. Parker helped him conduct a serious study of the Iroquois and thus his first book *League of the Ho-de-no-sau-nee or Iroquois* was published in 1851.

Morgan traveled a lot and never gave up an opportunity to study the Great Lakes Chippewa. He has been known as a founder of kinship studies due to his detailed studies on kinship, family and marriage among these communities. To help in his work, he enlisted the help of Indian Agents all over the United States and also government and missionary personnel all over the world. They helped him to record terminologies and classifications of kin. He tabulated and analyzed his results and thus his more famous work was written in 1871 and concerned *Systems of Consanguinity and Affinity of the Human Family*. In this work he made Maine's distinction between cognates and agnates

the basis of developing a unilinear evolutionary scale of human social history. He classified and compared the kinship systems of peoples around the world in an attempt to prove the Asiatic origin of American Indians. He developed the idea that the human family had evolved through a series of evolutionary stages, from primitive promiscuity on the one hand to the monogamous, patriarchal family on the other. Subsequent work showed Morgan to be wrong about this and a number of other things. However, his work showed the potential value of studying the distribution of different kinship systems in order to frame hypotheses of a developmental or historical nature and, by noting the connection between terminology and behaviour, showed the value of kinship for sociological study.

The errors of using a comparative analysis without adequate data was highlighted by his work, for only forty-eight completed schedules formed the factual basis of his book in 1871. To Maine's contrast between consanguinity and affinity, Morgan added classificatory and descriptive systems of kinship.

As time went on Morgan found the same types of kinship terminology. This he called *classificatory*, meaning that some lineal kinfolk were terminologically classified with some collaterals. He also realized that in other areas this similarity was not connected with Indian origins but common to many other 'primitive' groups. He then suggested that system formed an ancient type and his researches shifted from the specific to more general evolutionary tendencies in human beings. As a result he published *Ancient Society* in 1877, which was a very comprehensive evolutionist position of the nineteenth century. He accepted from the eighteenth century writings the idea that human society had progressed, become better and produced civilization. Through this work Marx and Engels worked to produce their own evolutionary scale of things. In later years, the Russian state republished this work in a subsidized edition as a textbook of human evolution for use by all.

He showed the stages of evolution through changes in technology, political organization and kinship systems and terminologies. Morgan postulated certain ethnical periods which could be observed in a synchronic study of the society. An ethnical period consisted of a specific collection of traits. Each of these traits had their own evolutionary sequence. However, certain clusters of traits tended to aggregate. These aggregations formed the stages through which a society evolved. This could be observed by making a diachronic study of the society. Morgan, in *Ancient Society* (1877), related his ethnical periods and their subdivisions with the following sequence of technological innovations:

Savagery

LOWER SAVAGERY: Fruit and nut subsistence, invention of language, had common ownership of property, ate uncooked foods, living in promiscuity with no real family.

MIDDLE SAVAGERY:	Fish subsistence and fire (eg. Australian aborigines and Polynesians at the point of contact with Western cultures.).
UPPER SAVAGERY:	Bow and arrow (eg. Athabaskan Indians of western Canada, Columbia River valley, certain tribes of North and South America).
Barbarism	
LOWER BARBARISM:	Pottery (eg. Iroquois Indians, American Indian tribes east of Missouri river, tribes of Europe and Asia).
MIDDLE BARBARISM:	Domestication of animals (Old World), cultivation of maize, irrigation, adobe and stone architecture (new World). Examples are Pueblo Indians of America, village dwelling Indians of Mexico and Central America and tribes in the Eastern Hemisphere.
UPPER BARBARISM:	Iron tools (Gracian tribes of Homeric Age, Italian tribes before the foundation of Rome and the Germanic tribes of the time of Julius Caesar).
CIVILIZATION:	Phonetic alphabet and writing, intensive agricultural production and monogamy.

In each of the above cases, Morgan gave examples of present societies which had remnants or ‘survivals’ of these traits still existing. He could not give an example only for lower savagery, a community which could not make fire on its own. He included within civilized societies not only modern European ones but also ancient Egypt, Greece and Rome. He shifted constantly from using materialist approaches to using ideational approaches – like the difference in approaches used for looking at technological development (materialist) as compared to the ones used to study the progress in forms of government (ideational). He disagreed with degeneration and catastrophic theories of the human race, preferring gradual evolutionism. He forced data to fit his theories sometimes. He ignored some of the works available in his day, like the Polynesian accounts by Captain Cook.

Morgan seems to have carefully avoided the use of the word ‘evolution’ or used it very rarely. His perspective was narrower than Spencer but broader than Tylor. Morgan seems to have meant that inventions and discoveries are linked in such a way that each successive one is determined by the one immediately preceding it. Social institutions, on the other hand, appear to Morgan to grow out of ideas implanted in the human mind from the beginning, and to do so more in accordance with some master plan than as a response to external conditions. Thus we find in Morgan the curious contrast of a modern and scientific conception of evolution existing side by side with an older and metaphysical one.

Morgan and Bachofen both exerted influence on each other. McLennan had put forward the two concepts 'exogamy' and 'endogamy'. Perhaps these terms would never have become so much a part of anthropological literature if Morgan had not popularized them by criticizing McLennan for their use.

- Thus, classical evolutionism or unilineal evolutionism may be summed up as:
- Culture or society proceeds through a single line of development.
 - It has set stages of similar content for all people.
 - However, the pace of development varies from society to society.
 - Though Morgan and Tylor believed in some diffusion having taken place, but the unilineal aspect was seen to be very strong.
 - The presence of survivals or vestigial patterns from the past which had lost their function but continued to be used by society, were taken to be proofs that society had gone through the earlier stages proposed. Hence, Morgan saw matrilineality as a survival that preceded patrilineality.
 - The methodology used in this period was called the comparative method. Social traits were compared to see which stage of evolution it belonged to. Thus living tribal people became the hallmark of earlier stages of human existence.
 - More or less, all of the classical evolutionists believed in some form of social Darwinism. As a result, since some were more fitted than others to survive, it justified imperialism and colonialism.

Neo-evolutionism

In recent years, it was claimed that throwing out evolution altogether as a reaction against 'armchair anthropology' would be doing it an injustice. Hence, they claimed that evolution is a reality and it should be thoroughly checked out. Many of the neo-evolutionists were students of Franz Boas, who taught them cultural relativism and an inductive method coupled with historical individualism that made a very composite mix of present contexts and past reality.

V. Gordon Childe (1892-1957) was part of the British school of neo-evolutionism. In 1925 he wrote *The Dawn of Western Civilization*, then *New Light on Most Ancient East* in 1934, *What Happened in History* in 1946, *Social Evolution* in 1951, *Man Makes Himself* in 1951 and *What is History* in 1953. He saw the evolution of culture in terms of the invention of food, urbanization and industrialization. He equated savagery with the Palaeolithic period, barbarism with the Neolithic period, higher barbarism with the Copper Age and civilization with the early Bronze Age. According to Julian Steward, he was a universal evolutionist. Since he followed a form of technological determinism, materialism and Morgan's evolutionary scheme, he was considered to be very close to the Marxists.

Childe was beset by his lack of interest in the evolutionary sequences in archaeology found from sites other than Europe and the Middle East. Since his main data was collected through archaeology, he was unable to make a distinction between the tribal societies with simple technologies of the present and the hunter-gatherers of the

past. His approach to socio-cultural institutions was also very weak. However, he had a tremendous influence on Indian archaeology.

Leslie White propagated the 'ladder' form or unilineal evolutionistic trend of the past though he used different bases for his analysis. On the contrary, Julian Steward, tried to see each culture growing on its own pathways on separate lines of development. This approach came to be called 'multilineal evolution.' In order to deal with the problems of both, and also to incorporate their advantages, Marshall D. Sahlins tried out a synthesis where he called the two 'general and specific evolution', respectively. He saw the two processes as being complementary parts of the evolutionary sequence. In one way or another, all of them seem to have been influenced by Karl Marx. Their materialistic theories were also put together into a more overtly Marxist theoretical outline called 'cultural materialism' by Marvin Harris. All of the anthropologists in this group were from America. Much of it stemmed also from the historical particularist school propagated by Franz Boas.

Leslie White

Leslie White (1900-1975) was a North American anthropologist, a professor at the University of Michigan. He found Boasian cultural relativism and particularism inadequate and confining. Many students were trying to ask about causal explanations and he felt that they deserved an answer. He felt that though the data of the earlier classical evolutionists was wrong, their theories had enough merit to be taken up again. He was finding it true that societies changed from the simple to more complex forms. However, he needed to find a mechanism for defining these changes that were not culture-specific. Once this scale was developed, cultures could be compared and then arranged in an evolutionary sequence.

He saw culture as being composed of three essential components – the techno-economic, the social and the ideological. He defined the techno-economic aspect of a culture as the way in which members of the culture deal with their environment, and thus it is this aspect that then determines the social and ideological aspects of the culture. He found much to his interest in Morgan and the works of Marx and Engels – so much so that he took a trip to the Soviet Union in 1929. Though White considered culture as being composed of symbols, he considered the way in which culture adapted to the environment as the most significant factor in its development. This strategy has been labeled as **the cultural materialist approach**. The cultural materialist approach in anthropology regards the manner in which a culture adapts to its environment as the most significant factor in its development (Haviland; 1993).

White wrote *The Science of Culture* in 1949. In *The Evolution of Culture* (1959: 56), White stated his basic law of evolution as follows:

“...culture advances as the amount of energy harnessed per capita per year increases, or as the efficiency or economy of the means of controlling energy is increased, or both.”

This may be graphically represented as:

$$\mathbf{E} \quad \mathbf{X} \quad \mathbf{T} \quad \longrightarrow \quad \mathbf{P}$$

Here, **E** is the energy involved and is the product of human energy (**H**) and non-human energy (**N**).

T is the technological means and is the product of tools and products of subsistence (**Sb**) with protection from the elements (**Pr**) and defense from enemies (**D**)

P is the culture conceived in terms of motive power.

He also calculated social organisation (**S**) as the product of nutrition (**N**), protection (**P**) and reproduction (**R**). He saw property (**P**) as the product of things (**T**) on which labour (**L**) is expended.

This law stated that culture evolves in proportion to the increased output of energy on the part of each individual, or to the increased efficiency with which that energy is put to work. In other words, culture develops in direct response to technological “progress.” Increased concentration of energy results in greater complexity, specialization and more parts.

For White, anthropology was the science of culture and he called it culturology. He was interested in symbols as a crucial feature that helps human beings to form culture. Thus culture was a mode of adaptation for human beings. Since culture, for him, could only be explained in terms of cultural materials, he follows Durkheim and Kroeber in advocating culture as being superorganic. Human beings, though similar biologically, behave differently. If we account for human behaviour through biological explanations, then human beings should behave similarly. However, human beings behave differently. Therefore, human behaviour is synonymous with cultural behaviour, since culture is a variable and not biology. For the Boasians like Sapir, it was as if White had eliminated individual human behaviour.

If such a view was considered by some as fatalist or defeatist, White never claimed that people were irrelevant. However, individuals operate on choices only available within their culture. Even the Boasians have been criticized as being cultural determinists.

White perceived three cultural subsystems operating and they were technological, sociological and ideological. The manner in which the society uses its technology to sustain life influences the sociological and ideological systems. Thus, technology and culture evolve as more energy is harnessed. However, though the origin is through the technological subsystem, once in motion the entire system is involved in a system of positive feedbacks.

Problems arise when such an approach is taken up. His theory fails to account for the fact that “technological progress” may occur in response to purely cultural stimuli. In this respect, his theories were heavily influenced by nineteenth-century notions of human progress. His theories, called ‘neo-evolutionist’ by many, were not accepted by his colleagues in the initial period. Even Lowie and Kroeber found little of importance in his theory. As a result of these arguments, relations between them became less than cordial.

Julian Steward

Julian H. Steward (1902-1972) was a North American anthropologist who developed an approach which he called **cultural ecology** – as defining the interaction of specific cultures with their environments. Steward was a student of both Lowie and Kroeber. He also turned from being a particularist to a generalist. He found White's approach too broad. He thought that while cultures used energy to progress, it did not explain why all cultures did not progress by using available free energy sources.

Steward felt that if identical processes were causing similar cultural developments in separate areas, the initial cause as well as causation in the successive stages could be found out by comparing the sequences in different cultures. Thus he wished to search for limited regularities of this kind, looking for parallel changes in form and function. This would enable anthropologists to look for any causal principles. He used environment and economy as independent variables and ideology and social organisation as dependent variables in his empirical studies. It was close to White's interacting subsystems.

According to Steward (1955: 19, 27):

“Evolution can be considered an interest in determining recurrent forms, processes and functions...Cultural evolution may be regarded either as a special type of historical reconstruction or a particular methodology or approach.”

He also said that (1969: 164):

“Cultural evolution... may be defined broadly as a quest for cultural regularities or laws... To me it has always been an empirical search for causes or explanations.”

Initially, Steward was interested in a number of similarities in the development of urban civilizations in both Peru and Mesoamerica and noted that certain developments were paralleled in the urban civilizations of the Old World. He then set out to identify the constants. He abstracted from these constants to derive the laws of cultural development. He saw three fundamental procedures for cultural ecology:

1. The interrelationship of a culture's technology and its environment must be analyzed. For instance the effectiveness of the culture in taking advantage of available resources to provide food and housing for its members.
2. The pattern of behaviour associated with a culture's technology must be analyzed. For instance, the way in which the members of a culture go about performing the work that is necessary for their survival.
3. The relationship between those behaviour patterns and the rest of the cultural system must be determined. For instance, how the work that they do to survive, affect the people's attitudes and outlooks, is one aspect. This survival behaviour is also linked to their social activities and so are their personal relationships, is another aspect.

Steward found distinct regularities in developmental sequences in early farming communities to empires built on conquest. He called the evolutionary sequences proposed by Leslie White and V. Gordon Childe as universal evolution as compared to his, which he called multilineal evolution. Unlike them, he proposed no universal stages. The convergences found between the Old World and the New World cultures he studied were attributed to cultural interaction with the environment. Humans are affected by the environment and they need to adapt to it. Through this process of adaptation to the environment, humans generate a superorganic culture (Garbarino; 1977).

Steward believed that due to the large number of cultural variables possible for study, it would be best to focus on what he called the *culture core*. This consisted of those institutions and techniques most closely associated with environmental adaptation and exploitation. Those cultures which have a similar culture core belong to the same cultural type. They show the same general responses to similar environments. They are thus assumed to have the same structural and functional interrelationships (Garbarino; 1977).

Steward (1955: 52) uses a number of *levels of sociocultural development*. He uses these levels in the same way as was used by Spencer. He used them as “a methodological tool for dealing with cultures of different degrees of complexity.” These levels of sociocultural complexity become apparent when cultural types are placed on a continuum of complexity. Steward suggested the use of these levels of sociocultural integration in order to compare units. The categories that he used were family level, multifamily level and state level. They were later refined to give band, tribe, chiefdom and state. Each level had different ways of integrating itself and involved differences in kinship, associations, economic complementarity, police force and bureaucracy.

Using the levels of sociocultural complexity and adaptation as the two basic variables, Steward advanced the idea of culture areas by classifying cultural types in terms of their ecological adaptations and historical developments. In this he did not follow Kroeber and Clark Wissler in placing primary importance on culture traits. His scheme had four areas – named as Marginal, Tropical Forest, Circum-Caribbean and Andean in the organisation of his book *The Handbook of the American Indians* (1946-1950).

The interests of Steward as well as many other contemporary evolutions lie in tracing the development of particular cultures. Moreover, it has often been remarked that evolution may be demonstrated only by showing that a particular culture has become more complex without being in contact with any other culture. This view characterizes much of Steward’s theoretical writing, for instance (1955: 12):

“In cultural evolution...it is assumed that cultural patterns in different parts of the world are genetically unrelated and yet pass through parallel sequences.”

Cultural ecology became much favoured among many anthropologists over the years. Andrew Vayda and Roy Rappaport were among the most well known of these,

who used a much more refined systems-subsystems approach to analyze the relationship between culture and environment as a form of feedback system.

Uniting these two approaches of general/universal evolution with specific/multilinear evolution, Marshall Sahlins and Elman Service proposed a combination of the two that used both of these methods as useful in understanding evolution. His concept was based on the use that evolution has in framing classificatory trees. On the one hand, evolution creates diversity through adaptive modification and thus differentiates and becomes adapted to more local environments (specific evolution). On the other hand, it becomes progressive, it creates new forms that surpass older ones (general evolution).

For Marvin Harris, multilinear evolution was a failed methodology since it was unclear how cultural ecology manages to operationalize the environmental-economic material base (culture core) as compared to the parts of the superstructure. For White, Steward is confused about historical particulars in his search for evolutionary generalizations.

Marx and Engels

The coming of the Industrial Revolution led to certain important results. Goods were produced for the first time on a mass scale. Initially, these goods were produced by cheap labour who received very little share of the profits. In the meantime James Watt and others invented the steam engine which was harnessed to industrial machines invented at the time, like Eli Whitney's cotton-gin. This made thousands of workers unemployed, since a small number of people could now handle the complex machinery. The feudal-agricultural base supported somewhat this influx of labour. Overall, it meant that now there was a plentiful supply of cheap labour waiting to be employed.

The production of goods, the preparation of factories, as well as the buying of machines was heavily capital intensive. This capital had to be won back by the sale of goods. To stop production meant higher costs and overheads. The goods had to be sold quickly. Yet, the majority of the population did not have enough money to buy these goods. If wages were increased, to keep the profits constant the price of goods had to be increased too. Once these goods were bought, these long-lasting goods could last a lifetime. That was bad news for the owners of the factories.

To overcome this, goods had to have variety. There would have to be a great variety of goods which changed frequently. To initiate a need within the people of a desire for buying more goods advertisements and enticements were devised. This unceasing variety and differences of quality in the goods meant that technological differences had to be made in the manufacture and presentation. All this meant spending more and more money. Short-term goods that would last for short periods of time only were ideal. In spite of it all, a larger and larger surplus accumulated in the warehouses of the industrial capitals of the world. Competitive trading countries and not help the situation any.

One way was to look for new areas, to colonize and take over new lands. Local labour or slaves could be used to exploit the raw materials from these areas. These raw materials would then be sent back to the factories and the finished goods would be unloaded on the local inhabitants who would buy these goods from the wages that they earned in garnering the raw material. The problem of a surplus was now solved and the industrialists saw their profits spiralling upwards.

In this manner industrialization and feudalism became inextricably linked with colonization and capitalism. However, these were also based on certain ideas.

Jeremy Bentham was known as a 'Philosophical Radical' who saw the mind as having primacy over matter. He claimed that the "association principle" and the "greatest-happiness principle" was the basis of all psychology. It meant that human behaviour was based on the greatest balance of pleasure over pain. This led to the pursuance of personal happiness. This theory was called utilitarianism and was very important in shaping capitalist economics. Bentham had also worked on civil law and following from his 'economic' outlook the four aims of his civil law were:

- 1) Subsistence,
- 2) Abundance,
- 3) Security, and
- 4) Equality.

Bentham passed his theories on to James Mill. James Mill was more moderate. He was influenced by the Epicurean model in finding a Golden mean between looking solely for personal happiness and working only towards alleviating the sufferings of other human beings. His version of Bentham's theory was taught to John Stuart Mill (1806-1873). From this source John Stuart Mill, the son of James Mill, learnt that in an equal argument or decision the greater number will always judge rightly. In the argument between social necessity and personal pleasure "the greatest good of the greatest number" won the day. Or, as Russell puts it:

"Ethics is necessary because men's desires conflict" (1947: 807).

Utilitarianism ultimately led to two schools. One was Darwinism which has already been described. The other was socialism.

Ricardo was an economist who was heavily influenced by Bentham, Malthus, and James Mill. In 1817, he published a book which claimed that the exchange value of a commodity is entirely due to the labour expended in producing it.

Eight years later, Thomas Hodgskin wrote 'Labour Defended Against the Claims of Capital' as a socialist rejoinder to Ricardo. According to Hodgskin, if all value is conferred by labour, then the reward should go to labour. If it does not, then it is exploitation.

Hodgskin's writings convinced Robert Owen who was a manufacturer. The word 'socialist' was first used in 1827 to describe the followers of Owen. Owen saw that newer and newer machinery displaced increasing numbers of workers. The workers could not fight the government allowance given to trade and manufacture as well as the concept of "*laissez-faire*". Owen started a factory in which workers were given big benefits as well as a share in the profits. It was a compromise between the "greatest-happiness principle" of capital and the exploitation of Labour. Owen was a friend of Bentham. However, the 'Philosophical Radicals' saw Owen as being less philosophical, less Radical and less socialistic than them.

So far, socialism consisted of loosely strung ideas and concepts. With the coming of Marx, socialism had a philosophy.

Karl Marx had a great impact on the works of thinkers and social scientists over the years. His theories are still the backbone on which new philosophies are being built ever anew. Marx had written widely and on many things. It is only to be expected that there are many interpretations of Marx. It would take volumes to give an account of each of these explanations. The account given here is based on a structuralist reading of Marx.

Hegel's picture of the universe sees a 'World Spirit,' which guides the behaviour of all matter. This was attacked by Feuerbach. Marx begins by following Feuerbach in his works. Marx had wanted to be scientific in everything he did. He used the concept of dialectical materialism to describe his philosophy. This would be known later as an 'instrumentalist' philosophy.

Karl Marx (1818-1883) and Frederick Engels (1820-1895) were two of the most influential philosophers of this period. Yet, it was the very simplicity of their assumptions that was their greatest strength and their greatest weakness. Marx had originally intended becoming a teacher at the University of Berlin but was unable to find himself a position due to his unorthodox views. He wrote and edited a newspaper for a while and then went to Paris. Paris was the centre for those interested in working class movements and other socialists. Engels was the son of a wealthy cloth manufacturer, which ensured that Marx was funded for his research and writing. Both formed the Communist League in 1847, a year before they brought out their *Communist Manifesto*. Engels' clear and simple style was said to be more popular than that of Marx.

Marx condemned all social scientists for not engaging in active social reform and for remaining aloof from social problems. He saw the end of private property as an inevitable outcome and end of capitalism, with the state controlling all property. Though Morgan's *Ancient Society* was published thirty years after the *Manifesto*, Marx found independent confirmation of his thoughts there.

According to Marx, all sensation and perception is an interaction between the subject and the object. Hence, the knower and the known are in dialectical opposition in perpetuity. Further, sensation is coupled to action in such a way that without action there can be no sensation. In this way, Hegel's 'Spirit' is turned on its head. Marx is strongly

materialistic and his economic determinism is the basis of the rest of his work, for Marx went on to write a materialistic history of philosophy. This philosophy can be understood only by taking up Marx's conception of the relationship of human beings with nature.

Marx sees human beings as animals who obtained their living from the geographical environment. This helped them to stay alive and to look after their offspring till they became independent. Things can only be understood as concepts, therefore concepts have to be understood first. It was the action of human beings on nature that were the ultimate basis of all concepts. However, the values of human beings as well as their concepts are not restricted to an individual. They are shared with other people in a society. Hence, ideas and values are not only the result of individual adaptations to natural conditions. They were forms that were a result of the history of society rather than the history of the individual.

Hence, men are part of an interactive group engaged in production, leading to concepts, ideas, values, institutions, etc. Further, human beings exploit one another leading to a different set of exploitative ideas, concepts, values and institutions. This latter set of concepts perpetuates the exploitative ideas and hides from the exploited this process of exploitation. This Marx calls 'ideology'.

Marx analyzed society in the form of social formations or socio-economic formations. These social formations had a super-structure which was fairly evident and a base or infrastructure. Each social formation has its own history. Over generations, these historical concepts are transmitted from one generation to another.

Production is the basis of human survival through the use of nature. It is the basic item required for survival. In the urge to use nature, human beings use labour. Labour is thus a process between human beings and nature which enables the carrying out of the material reactions for production. Marx calls this entire relationship of material objects and nature as the Means of Production. The Means of Production are subdivided into two distinct categories – the Objects of Labour and the Means of Labour.

The Objects of Labour constitute the natural resources like the soil and other raw materials, which may also be semi-finished products. These are the basic natural and semi-natural resources which will give human beings a means to survive on the expenditure of labour.

The Means of Labour involve the use of hands or technology to transform the Objects of Labour into directly usable products.

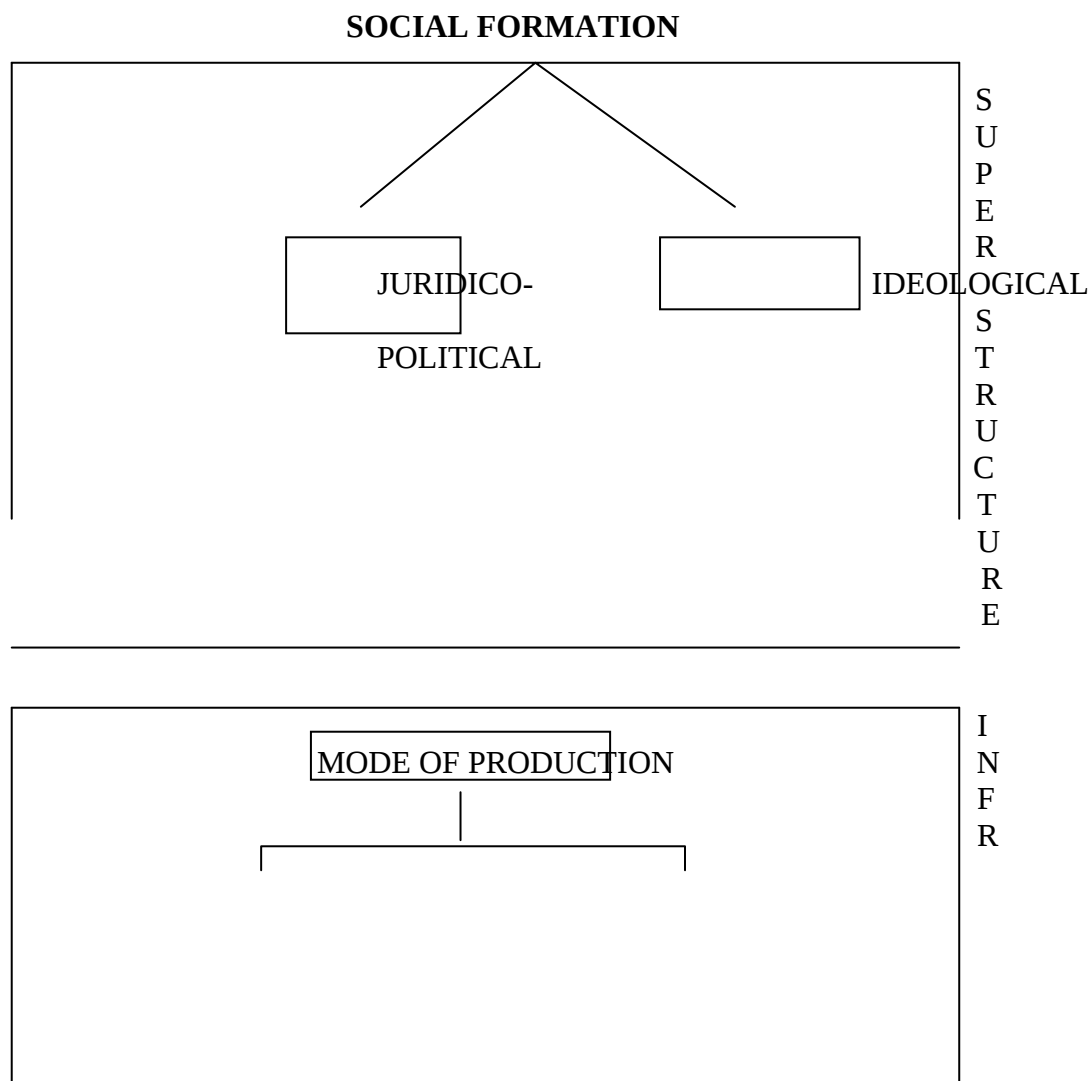
This shows how human beings and nature are closely linked, with the human beings transforming nature into needed objects. This relationship also includes the way in which labour is used and organized. This latter relationship is termed as the Organization of Production. The Organization of Production and the Means of Production are united dialectically to give rise to the Forces of Production or the Productive Forces.

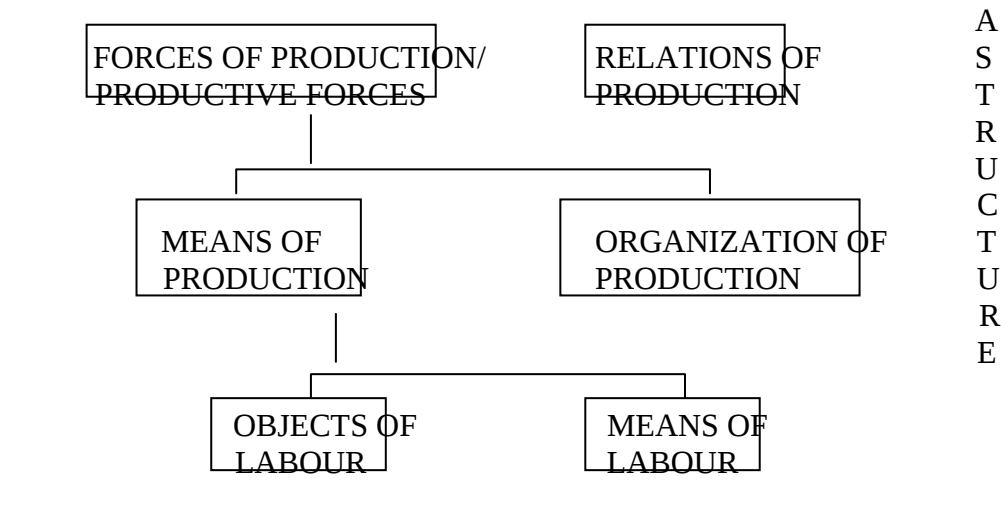
The Forces of Production give the totality of resources, the labour, and the form of its use. According to Marx, this is specific to each given historical stage. It expresses the 'Productive Potential of Society'.

The Relations of Production are another aspect of the infrastructure. In carrying out activities humans have to interact and co-operate. Thus, the relationships that people enter into while carrying out production are the Relations of Production. Relations of Production is a concept describing the economic relations of people to the Means of Production and whoever owns the products (see diagram below).

Relations of Production also include relations within households; between elders and dependants; and between men and women; forms of co-operation within the community; the ways in which the products are distributed, and relations with commercial groups. These relations set boundaries within which human interactions with nature occur.

Economic relations may be defined as the relations existing between men and women and the material elements of the production process. Since the history of a social formation determines the relations between human beings, the organization of labour, and its use; then, a particular relation often becomes indicative of a particular stage in the history of the social formation.





Therefore, the Forces of Production and the Relations of Production cannot be analyzed separately. In the final analysis, the interaction of people with the forces of nature inevitably leads to an interaction between people. Thus, the Relations and the Forces of Production always form a dialectical unity. One cannot change without the other being affected by it. A change in technology, for instance, changes the relationship of human beings with nature. As a result, the relations between human beings also change. This dialectical unity of the Forces of Production and the Relations of Production is known as the Mode of Production.

Hence, it is ultimately the Forces of Production that lead to the Relations of Production. In such a situation, it is quite possible that the Forces of Production may leave behind the Relations of Production thus creating a lag. This is what brings about a contradiction. This contradiction leads to change, and this change matches the Forces and the Relations of Production again. Thus, changes in socio-economic formations can be seen internally in the dialectics between the Forces and the Relations of Production rather than as an externally motivated event.

The modes of production analysis is a processual rather than a static one. Therefore, it can be argued that a correct adjustment of the Forces and the Relations of Production leads to the development of one mode of production to its next historical stage. If the adjustment between the Forces and the Relations of Production is unbalanced, then this development may be delayed. The mode of production forms the basic infrastructure on which the superstructure rests. This superstructure is a composite of two elements - the juridico-political and the ideological.

The superstructure is not the entire consciousness of the social formation. It is only that part of the consciousness that enables the social formation to carry on its mode of production and therefore its Relations of Production. It is only the necessary consciousness that is required to produce and reproduce the Mode of Production.

Human beings interact with nature in order to survive. This leads to certain Relations of Production. However, the reality of conceptualizations. The Relations of Production logicalize this relationship of human beings with nature. This logicalization is the superstructure.

Juridico-political relations are part of the conscious social relations of human beings. These relations include jural and political relationships with the state and with each other. These relationships include customs, moral codes, and so on.

As a result of human social relations, people acquire a conscious conceptualization of ideas. These are culturally transmitted. This system of ideas forms the ideological sphere of the superstructure.

Production and Reproduction link up the infrastructure and the superstructure into a unified system. In order to survive the social formation has to produce and reproduce not only biologically but also a whole pattern of human life. To maintain this production and reproduction a minimum of juridico-political and ideological superstructure is required. Under a given set of economy, the social formation has to reproduce the conditions of its existence; only then can it survive. This is how the economy is determinant in the last instance, rather than the juridico-political or the ideological spheres of a social formation.

Through Engels, Marx was introduced to Lewis Henry Morgan's scheme of social evolution. This became very captivating to Marx for a number of reasons. Morgan's chronology was longer than that of his predecessors. Human history was seen as going back before the Pleistocene. The end of the Pleistocene was at least two hundred thousand years ago. On a scale of this kind, it became important to understand why no change occurred for long periods of time. When change occurred it was sudden and cataclysmic. Thus, Marx was not a follower of the theory of gradualism proposed by Lyell and used by Darwin. In communist Russia, when Lysenko preached a form of Lamarckism he was welcomed with open arms. Morgan had also argued for a movement or development where an advance in one sequence gradually puts into effect a series of changes in other sequences leading to an evolutionary change.

Over the years Marxists have propounded a number of modes of production in historical progression. It soon became a fad to proclaim a new mode of production in almost every area studied by Marxists. However, the initial modes of production as announced by Marx were few in number.

The primitive community mode of production is mainly characterized by a communal ownership of property coupled with close kinship relations. It also includes forms of co-operative labour.

The slave mode of production is based on the fact that families do not apply their own labour, but use the labour of slaves who become the property of these families and are exploited by them. Technology remains primitive.

In a Feudal System, rulers take up lands and distribute them to barons. Labour of the peasants is used to till the lands. Most of the produce goes to the barons. These peasants are known as serfs and cannot readily leave their masters. The land is not owned by the actual producers.

In a capitalistic system, the entire production system has an over-riding interest in commodities. Therefore, exchange or surplus value becomes more important than use-value. The use-value of a product is determined by its consumption patterns, i.e., the produce is for consumption rather than for exchange. Exchange value is the production of a commodity primarily for exchange. Soon, as the surplus of exchange value goods increases, the market enters the picture. This is the beginning of capitalism. Here, even labour may be sold as a commodity. The ownership of land switches to private. The owners form a minority and are called bourgeoisie. The others become the working class or the proletariat. The capitalist mode of production develops its own internal contradictions. A revolution by the proletariat occurs and the system changes into the Socialist mode of production which is the last in this evolutionary scale.

The socialist mode of production can be said to be the Marxian utopia. The principle of “from each according to his means to each according to his needs” is followed. There is again a communal ownership of property coupled with close kinship relations. It also includes forms of co-operative labour.

The Marxian analysis of society has had many adherents and as many detractors. For Marxists, Marx is the ultimate, the last word in everything that they do or say. However, Marx is not always so easy to understand. Coupled with Engels, Marxian analysis develops into a system which can be used to transform society. The above description does not begin to explain the complexities and problems inherent in such an approach.

Over time, socialists have tried to keep alive the teachings of Marx. As they read Marx, they formed their own interpretations which became hotly debated. Communists/Socialists formed hierarchies where only the elites in their groups knew exactly what was true and what was an *ideology*. Increasingly, Marxists were dissatisfied with the interpretations given by their leaders.

Althusser and Balibar were two French Marxist philosophers who then presented a detailed analysis of Marx's most famous work *Capital* (published in 3 volumes). They presented a systematic interpretation of Marxism in the work entitled *Reading Capital*. This work was extremely well-received and remained the mainstay of many Marxists. However, this reading of Marx has been criticized for being too structural.

Marx's analysis was based on the rise of capitalism from feudalism as he observed in the European countries and in U.K. From this he analyzed and incorporated into his approach the historical-evolutionary development of the rest of the world. In this he was no different from the unilinear or classical evolutionists. In fact, the Marxian

evolutionary scale was borrowed from Lewis Henry Morgan's approach. Hence, this evolutionary scheme suffers from most of the faults of Morgan's approach.

The various forms of Marxism that have become popular over the years have had their strengths as well as their weaknesses. In spite of the breakdown of communism in Russia, Marxist theory continues to inspire new generations of social scientists with its aesthetically satisfying theory.

Without Marxism, the movement towards Welfare capitalism would have remained incomplete and unrealized. Even now, after so many years, Marxist theory keeps bringing in surprising new innovations into the field of social science. Even when orthodox Marxism claims that a study of culture is unimportant since it falls in the realm of the superstructure, humanist Marxists would include cultural analysis as an integral part of Marxism.

Marxists would like to bring in a revolutionary social change. Coupled with socio-political pressure, Marxists often tend to keep their organizations and activities secret. Having split into a number of splinter groups, these groups then become difficult to assess for social scientists. All this makes present trends in Marxist thought and action (*praxis*) difficult to trace out on a global scale.

Conclusion

Evolution was used by the earlier scientists to carry out a scientific study of the origins of human existence and way of life. However, their assumptions and methodology were flawed. They assumed that ordinarily evolution, whether biological or cultural, moves from the simple to more complex forms. From similarity of form, it moves to many forms which separate and become more dissimilar. From the indefinite, it becomes more precisely attuned and definite. It moves, as stated by Spencer, from an incoherent homogeneity to a coherent heterogeneity.

Cultural evolution assumes that true cultural parallels or similarities developed independently in all cultures in historical sequences and that parallels or similarities developed independently. How individuals separated in space and time thought similarly was explained by Adolph Bastian's psychic unity of mankind, i.e., human beings thought similarly everywhere.

While biological evolution assumes all forms to be genetically related, their development and evolutionary traits are seen to be either divergent or convergent. Similarities of structure are often seen to be cases of convergent evolution than parallel evolution. On the other hand, in cultural evolution, cultural patterns are genetically related but pass through the same stages or parallel sequences. Divergent trends in this scenario, caused by local circumstances, were often ignored. As a result, the classical evolutionists, universal evolutionists and unilinear evolutionists dealt with human cultures as a whole rather than individual cultures.

In the same way as biological evolution, theories of cultural evolution seem to have evolved and developed into more complex forms from their rather simplistic beginnings. Today, there are few, if any, practitioners of this kind of thinking in the world. However, science learns as much from its failures as from its successes. Similarly, through cultural evolutionary theories, we have learnt to go ahead into areas of thinking that were not thought of earlier. We know the limitations of such thought. We also know where we may incorporate certain aspects of these theories into a research programme. Through these theories, reactions arose that led to the development of better theories of society and culture.

It is thus that we speak of the precursors of anthropology today – with affection for their thoughts and respect for their erudition. If at any point of time it may be stated that anthropology is a science, it is these beginnings that have made it so. The minds of these thinkers must not be thought of through our social, political, economic and cultural lenses but through their own. Under the circumstances of their existence, however false their ideologies or political and social systems seem today, they stood head and shoulders above the rest in their thoughts and researches.

One way of showing that evolution had actually passed through the stages mentioned was to show that the earlier or more ‘primitive’ traits were still present even after all these years in some cultures. These ‘primitive’ traits were called ‘survivals’. It soon became a fad to show anything strange as a survival from the past. In this case, the cultures could then be compared to show which was the more ‘primitive’. This became the comparative method of early anthropology. Such a method became the handmaiden of the colonial powers. Coupled with social Darwinism, it became a powerful tool for the colonization, subjugation and usurpation of those who were considered to be inferior or more ‘primitive’. Hence, later anthropologists criticized this trend and now it is politically and ethically incorrect to use the term ‘primitive’ to human beings and their present-day cultures. Such a trend had many forms and subtypes. One such form was identified by Edward Said and called *Orientalism*. It claimed that earlier scholars created an ‘oriental’ form of human being, much like the ‘primitive’. In spite of this, the Indian government still uses the term ‘primitive’ to designate the lowest stage of development of some of the tribal communities in India.

If we are at all to continue these researches, we must incorporate the mistakes of all these researches. One recent trend of this process is to project human social lives into the future to try to predict what the future holds for all of us.

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