



What's Anthropology? IS IT RELATED TO SCIENCE?????

Shobha Kumari

Anthropology department
New Delhi, India

Anthropology is the universal study of human biology and culture to understand better the human species. Anthropology is having broader scope in present and also future. It covers a much greater span of time than these disciplines and comprises a different field. Charles Darwin's given theory of evolution in 1859 suggested that different types of species developed from one to another in over a long period of time. In Anthropological study Evolution may be act as the back bone which provides a vital role to better understanding of the human beings. In other words, we can say that anthropology is the modified scientific study of the evolution the physical, socio-cultural behaviour of humans and varieties of human beings and the societies. They may be both primitive and contemporary. Human beings are the most advanced species on this earth and studying each and every aspect of them concerning social, biological, cultural, lingual, Psychological, so on and so forth is magnetic, interesting and actually influential. Due to this reason anthropology makes possible and realistic all outcomes in present and future. In Anthropology, origins of humanities, natural sciences and social sciences play a key role in the development of Industrialization. Of all the disciplines that examine aspects of human existence and accomplishments, only Anthropology explores the entire panorama of the human experience from human origins to contemporary forms of culture and social life. Thus, the science of Anthropology developed as an outgrowth of contemporary studies of the classification of human races and the comparison between primitive and ancient societies and also the historical development of man's economy and Industrial development.

Key word: Anthropology, Evolution, anthropology outcomes, etc.

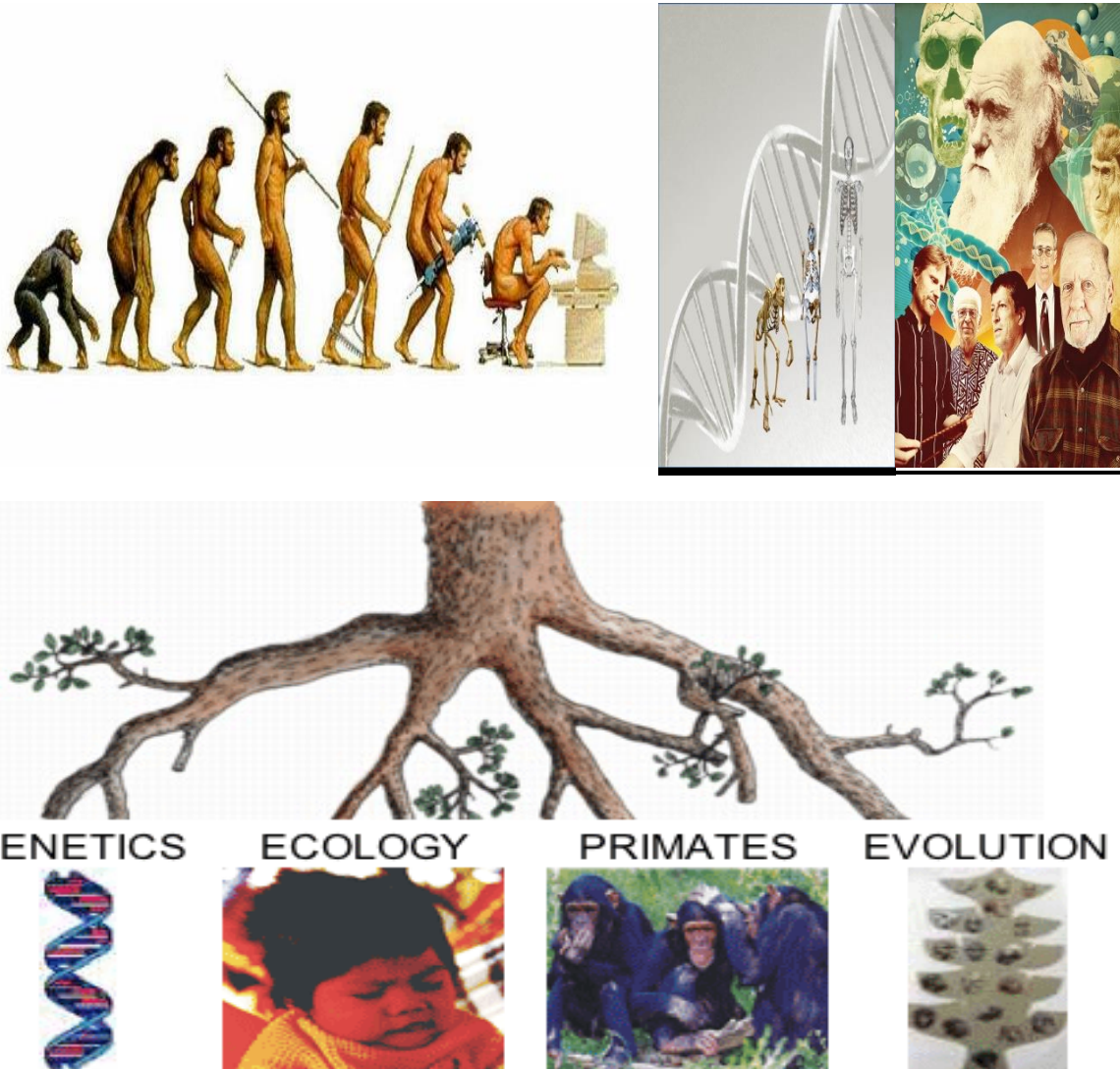


Figure: 1 Shows the scope of Anthropology (source: www.google.com)

Anthropology as a Discipline

- Anthropology is a generalizing and comparative discipline with a concern for understanding human diversity on a worldwide. Anthropologists participate in pragmatic research with established theories, methods, and systemic, logical, scientific inquisitive techniques. They conduct field-based research as well as laboratory analyses and archival investigations.



- A hallmark of Anthropology is its holistic perspective—understanding humankind in terms of the dynamic interrelationships of all aspects of human existence. Different aspects of culture and society exhibit patterned interrelationships (e.g., political economy, social configurations, religion and ideology).
- Culture cannot be divorced from biology and adaptation, nor language from culture. Contemporary societies cannot be understood without consideration of historical and evolutionary processes.
- Modern Anthropology uses genetics as a tool to understand human variation and evolution involving the focus on health and evolutionary aspects. Specific and concrete study on the population and community approaches is made to understand the susceptibility to various diseases due to sharing of common gene pool and common ancestry. These approaches have become possible and relevant after the advent of the Human Genome Project and Hap Map Project.
- In simple words the subject matter of Anthropology deals with Human variation and evolution, humans not as individuals but ethnic groups or populations as a unit of study.

Anthropology is divided into four fields ; Physical/biological anthropology, social/cultural anthropology, archeological anthropology and linguistic anthropology, that focus on separate entities of human study but their subject matter is related to social, behavioral, and natural sciences. Major focus of the present study is biological anthropology. (Tripathy et al., 2008). Biological Anthropology explains human biological origins and variation. Subfield of Biological Anthropology is Molecular Anthropology which is the study of human genetic polymorphism, a fast and ever-growing method that holds a great promise for both past and future. Thus, Molecular anthropology has important implications for evolutionary biology and disease analyses (Mastana, 2007). Molecular anthropology is playing a significant role in our understanding of gene - environment interactions and contribution of populations to the detection of genes in common and complex diseases like cardiovascular disease. The study of human genetics can be useful for human nature, understanding of the diseases and development of effective disease treatment like non communicable diseases and communicable disease. The Hap Map project, which provided researchers with enormous opportunities and genetic markers for disease, population and evolutionary studies, helps in the study



of the peopling of India and the relationships between different populations using traditional genetic markers. Genetic or molecular markers are heritable sequences that involve the existence of different forms (alleles) of the same gene. These differences are tracked as molecular markers to identify desired genes and the resulting trait. Most organisms are diploid, meaning they have two copies of each gene, one from each parent. One gene usually dominates the other thus determining the inherited trait (Avis, 1994) suggested that molecular markers should be used most intelligently when they address controversial areas or when they are employed to analyze problems in natural history and evolution that have proven beyond the purview of traditional non-molecular observation. Molecular Markers can be:

Repeat Length Polymorphisms, Short Tandem Repeats, Single Nucleotide Polymorphisms (SNPs). These markers are now extensively studied in the human genome for their association with different complex diseases for understanding various aspects of population differentiation and human evolution.

Conclusion:

Anthropology has a holistic value which uses genetic as a tool to understand human variation and evolution involving focus on health and evolutionary aspects. Anthropological genetics uses the findings of human genome project based on patterns of genetic similarity among different human populations to infer demographic history, including mating structure, the history of migration and admixture with surrounding groups, population size fluctuations, surrounding genetic environment, lifestyle factors and other environmental factors, variations among individuals and their susceptibility to disease in a more community specific and population specific manner. Therefore, Anthropology has a holistic value in field of biology.

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