

# Sociocultural evolution

**Sociocultural evolution(ism)** is an umbrella term for theories of **cultural evolution** and social evolution, describing how cultures and societies have changed over time. Note that "sociocultural evolution" is not an equivalent of "sociocultural development" (unified processes of differentiation and integration involving increases in sociocultural complexity), as sociocultural evolution also encompasses sociocultural transformations accompanied by decreases of complexity (degeneration) as well as ones not accompanied by any significant changes of sociocultural complexity (cladogenesis).<sup>[1]</sup> Thus, **sociocultural evolution** can be defined as "the process by which structural reorganization is affected through time, eventually producing a form or structure which is qualitatively different from the ancestral form.... Evolutionism then becomes the scientific activity of finding nomothetic explanations for the occurrence of such structural changes".<sup>[2]</sup> Although such theories typically provide models for understanding the relationship between technologies, social structure, the values of a society, and how and why they change with time, they vary as to the extent to which they describe specific mechanisms of variation and social change.

Historically, Europeans had tried to explain the meaning of "primitive" societies, with some arguing that primitive peoples had degenerated from a "barbarous" to an even lower "savage" state. These observers often saw European society as symbolizing the highest state of "civilization."<sup>[3]</sup> Over time, important commentators like Edward Burnett Tylor, Lewis Henry Morgan, Franz Boas, Leslie White, and Julian Steward elaborated on this thinking with theories from unilinear evolution to the "culture history" approach.<sup>[3]</sup>

Sociocultural modeling<sup>[4]</sup> is an umbrella term for theories of cultural and social evolution, which aims to describe how cultures and societies have developed over time. Such theories typically provide models for understanding the relationship between technologies, social structure, the beliefs, values and goals of a society, and how and why they change with time.<sup>[5]</sup> Such models are of particular interest to the military in helping unstable regions transition to more stable sustainable states. Most 19th century and some 20th century approaches aimed to provide models for the evolution of humankind as a whole, arguing that different societies are at different stages of social development. The most comprehensive attempt to develop a general theory of social evolution with center in the development of socio-cultural system was done by Talcott Parsons on a scale which included a theory of world-history. Another attempt both on a less systematic scale was attempted by World System approach. Many of the more recent 20th-century approaches focus on changes specific to individual societies and reject the idea of directional change, or social progress. Most archaeologists and cultural anthropologists work within the framework of modern theories of sociocultural evolution. Modern approaches to sociocultural evolution include neoevolutionism, sociobiology, theory of modernization and theory of postindustrial society.

## Introduction

Anthropologists and sociologists often assume that human beings have natural social tendencies and that particular human social behaviours have non-genetic causes and dynamics (i.e. they are learned in a social environment and through social interaction). Societies exist in complex social environments (i.e. with natural resources and constraints), and adapt themselves to these environments. It is thus inevitable that all societies change.

Specific theories of social or cultural evolution are usually meant to explain differences between coeval societies, by positing that different societies are at different stages of development. Although such theories typically provide models for understanding the relationship between technologies, social structure, or values of a society, they vary as to the extent to which they describe specific mechanisms of variation and change.

Early sociocultural evolution theories—the theories of Auguste Comte, Herbert Spencer and Lewis Henry Morgan—developed simultaneously but independently of Charles Darwin's works and were popular from the late 19th century to the end of World War I. These 19th-century unilineal evolution theories claimed that societies start out in a *primitive* state and gradually become more *civilized* over time, and equated the culture and technology of

Western civilization with progress. Some forms of early sociocultural evolution theories (mainly unilineal ones) have led to much criticised theories like social Darwinism, and scientific racism, used in the past to justify existing policies of colonialism and slavery, and to justify new policies such as eugenics.

Most 19th-century and some 20th-century approaches aimed to provide models for the evolution of humankind as a single entity. However, most 20th-century approaches, such as multilinear evolution, focused on changes specific to individual societies. Moreover, they rejected directional change (i.e. orthogenetic, teleological or progressive change). Most archaeologists work within the framework of multilinear evolution. Other contemporary approaches to social change include neoevolutionism, sociobiology, dual inheritance theory, theory of modernisation and theory of postindustrial society.

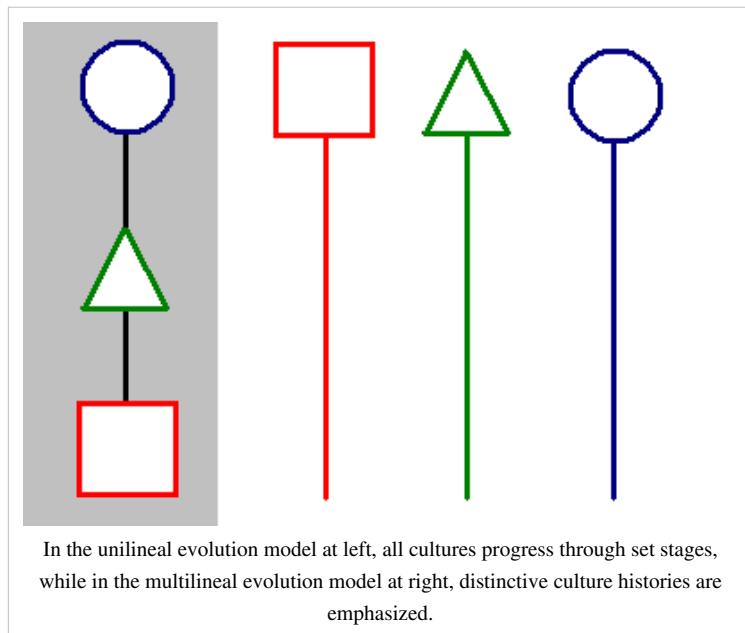
Richard Dawkins wrote in *The Selfish Gene* in 1976 that "there are some examples of cultural evolution in birds and monkeys, but ... it is our own species that really shows what cultural evolution can do".<sup>[6]</sup>

## Classical social evolutionism

### Development

#### Organic society

The 14th century Islamic scholar Ibn Khaldun concluded that societies are living organisms that experience cyclic birth, growth, maturity, decline, and ultimately death due to universal causes several centuries before the Western civilisation developed the science of sociology. Nonetheless, theories of social and cultural evolution were common in modern European thought. Prior to the 18th century, Europeans predominantly believed that societies on Earth were in a state of decline. European society held up the world of antiquity as a standard to aspire to, and Ancient Greece and Ancient Rome produced levels of technical accomplishment which Europeans of the Middle Ages sought to emulate. At the same time, Christianity taught that people lived in a debased world fundamentally inferior to the Garden of Eden and Heaven. During The Age of Enlightenment, however, European self-confidence grew and the notion of progress became increasingly popular. It was during this period that what would later become known as "sociological and cultural evolution" would have its roots.



#### Stadial theory

The Enlightenment thinkers often speculated that societies progressed through stages of increasing development and looked for the logic, order and the set of scientific truths that determined the course of human history. Georg Wilhelm Friedrich Hegel, for example, argued that social development was an inevitable and determined process, similar to an acorn which has no choice but to become an oak tree. Likewise, it was assumed that societies start out primitive, perhaps in a Hobbesian state of nature, and naturally progress toward something resembling industrial Europe.

While earlier authors such as Michel de Montaigne discussed how societies change through time, it was truly the Scottish Enlightenment which proved key in the development of sociocultural evolution. After Scotland's union with England in 1707, several Scottish thinkers pondered what the relationship between progress and the 'decadence' brought about by increased trade with England and the affluence it produced. The result was a series of "conjectural histories". Authors such as Adam Ferguson, John Millar, and Adam Smith argued that all societies pass through a series of four stages: hunting and gathering, pastoralism and nomadism, agricultural, and finally a stage of commerce. These thinkers thus understood the changes Scotland was undergoing as a transition from an agricultural to a mercantile society.

Philosophical concepts of progress (such as those expounded by the German philosopher G.W.F. Hegel) developed as well during this period. In France authors such as Claude Adrien Helvétius and other philosophes were influenced by this Scottish tradition. Later thinkers such as Comte de Saint-Simon developed these ideas. Auguste Comte in particular presented a coherent view of social progress and a new discipline to study it—sociology.

These developments took place in a wider context. The first process was colonialism. Although imperial powers settled most differences of opinion with their colonial subjects with force, increased awareness of non-Western peoples raised new questions for European scholars about the nature of society and culture. Similarly, effective administration required some degree of understanding of other cultures. Emerging theories of sociocultural evolution allowed Europeans to organise their new knowledge in a way that reflected and justified their increasing political and economic domination of others: colonised people were less evolved, colonising people were more evolved. When the 17th-century English philosopher Thomas Hobbes described indigenous people as having "no arts, no letters, no society" and their life as "solitary, poor, nasty, brutish, and short", he was defining the stereotype of a "savage," one that would last for many years. Modern civilization, understood as the Western civilization, was the result of steady progress from such a state, and such a notion was common to many thinkers of the Enlightenment, including Voltaire.

The second process was the Industrial Revolution and the rise of capitalism which allowed and promoted continual revolutions in the means of production. Emerging theories of sociocultural evolution reflected a belief that the changes in Europe wrought by the Industrial Revolution and capitalism were improvements. Industrialisation, combined with the intense political change brought about by the French Revolution and the U.S. Constitution, which were paving the way for the dominance of democracy, forced European thinkers to reconsider some of their assumptions about how society was organised.

Eventually, in the 19th century three great classical theories of social and historical change were created: sociocultural evolutionism, the social cycle theory, and Marxist historical materialism.<sup>[7]</sup> Those theories had one common factor: they all agreed that the history of humanity is pursuing a certain fixed path, most likely that of social progress.<sup>[7]</sup> Thus, each past event is not only chronologically, but causally tied to the present and future events.<sup>[7]</sup> Those theories postulated that by recreating the sequence of those events, sociology could discover the laws of history.<sup>[7]</sup>



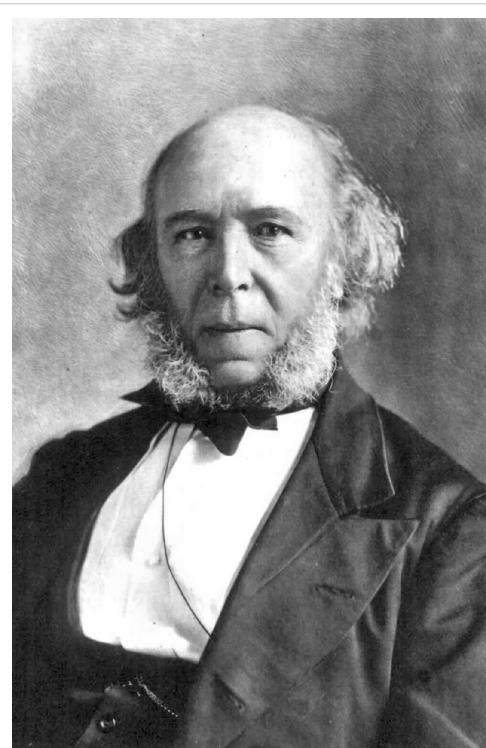
## Sociocultural evolutionism and the idea of progress

While sociocultural evolutionists agree that an evolution-like process leads to social progress, classical social evolutionists have developed many different theories, known as theories of unilineal evolution. Sociocultural evolutionism was the prevailing theory of early sociocultural anthropology and social commentary, and is associated with scholars like Auguste Comte, Edward Burnett Tylor, Lewis Henry Morgan, Benjamin Kidd, L.T. Hobhouse and Herbert Spencer. Sociocultural evolutionism attempted to formalise social thinking along scientific lines, with the added influence from the biological theory of evolution. If organisms could develop over time according to discernible, deterministic laws, then it seemed reasonable that societies could as well. Human society was compared to a biological organism, and social science equivalents of concepts like variation, natural selection, and inheritance were introduced as factors resulting in the progress of societies. Idea of progress led to that of a fixed "stages" through which human societies progress, usually numbering three—savagery, barbarism, and civilization—but sometimes many more. As early as the late 18th century Marquis de Condorcet listed 10 stages, or "epochs", each advancing the rights of man and perfecting the human race. At that time, anthropology was rising as a new scientific discipline, separating from the traditional views of "primitive" cultures that was usually based on religious views.

Classical social evolutionism is most closely associated with the 19th-century writings of Auguste Comte, Herbert Spencer (coiner of the phrase "survival of the fittest").<sup>[8]</sup> In many ways Spencer's theory of "cosmic evolution" has much more in common with the works of Jean-Baptiste Lamarck and Auguste Comte than with contemporary works of Charles Darwin. Spencer also developed and published his theories several years earlier than Darwin. In regard to social institutions, however, there is a good case that Spencer's writings might be classified as 'Social Evolutionism'. Although he wrote that societies over time progressed, and that progress was accomplished through competition, he stressed that the individual (rather than the collectivity) is the unit of analysis that evolves, that evolution takes place through natural selection and that it affects social as well as biological phenomenon. Nonetheless, the publication of Darwin's works proved a boon to the proponents of sociocultural evolution. The ideas of biological evolution was seen as an attractive explanation for many questions about the development of society

Both Spencer and Comte view the society as a kind of organism subject to the process of growth—from simplicity to complexity, from chaos to order, from generalisation to specialisation, from flexibility to organisation.<sup>[8]</sup> They agreed that the process of societies growth can be divided into certain stages, have their beginning and eventual end, and that this growth is in fact social progress—each newer, more evolved society is better.<sup>[8]</sup> Thus progressivism became one of the basic ideas underlying the theory of sociocultural evolutionism.<sup>[8]</sup>

Auguste Comte, known as father of sociology, formulated the law of three stages: human development progresses from the theological stage, in which nature was mythically conceived and man sought the explanation of natural phenomena from supernatural beings, through metaphysical stage in which nature was conceived of as a result of obscure forces and man sought the explanation of natural phenomena from them until the final positive stage in which all abstract and obscure forces are discarded, and natural phenomena are explained by their constant relationship.<sup>[9]</sup> This progress is forced through the development of human mind, and increasing application of thought, reasoning and logic to the understanding of the world.<sup>[10]</sup> For Comte, it was the science-valuing society that was the highest, most developed type of human organization.<sup>[9]</sup>



Herbert Spencer

Herbert Spencer, who argued against government intervention, believing that society evolution should be toward increasing individual freedom.<sup>[11]</sup> Differentiated between two phases of development, focusing on the type of internal regulation within societies.<sup>[9]</sup> Thus he differentiated between military and industrial societies.<sup>[9]</sup> The earlier, more primitive military society has a goal of conquest and defence, is centralised, economically self-sufficient, collectivistic, puts the good of a group over the good of an individual, uses compulsion, force and repression, rewards loyalty, obedience and discipline.<sup>[9]</sup> The industrial society has a goal of production and trade, is decentralised, interconnected with other societies via economic relations, achieves its goals through voluntary cooperation and individual self-restraint, treats the good of individual as the highest value, regulates the social life via voluntary relations, values initiative, independence and innovation.<sup>[9] [12]</sup> The transition process from the military to industrial society is the outcome of steady evolutionary processes within the society.<sup>[9]</sup>

Regardless of how scholars of Spencer interpret his relation to Darwin, Spencer proved to be an incredibly popular figure in the 1870s, particularly in the United States. Authors such as Edward L. Youmans, William Graham Sumner, John Fiske, John W. Burgess, Lester Frank Ward, Lewis H. Morgan and other thinkers of the gilded age all developed theories of social evolutionism as a result of their exposure to Spencer as well as Darwin.



Lewis H. Morgan

Lewis H. Morgan, an anthropologist whose ideas have had much impact on sociology, in his 1877 classic *Ancient Societies* differentiated between three eras: savagery, barbarism and civilization, which are divided by technological inventions, like fire, bow, pottery in the savage era, domestication of animals, agriculture, metalworking in the barbarian era and alphabet and writing in the civilization era.<sup>[13]</sup> Thus Morgan introduced a link between social progress and technological progress. Morgan viewed technological progress as a force behind social progress, and any social change—in social institutions, organizations or ideologies—has its beginnings in technological change.<sup>[13]</sup> <sup>[14]</sup> Morgan's theories were popularized by Friedrich Engels, who based his famous work *The Origin of the Family, Private Property and the State* on it.<sup>[13]</sup> For Engels and other Marxists, this theory was important as it supported their conviction that materialistic factors—economic and technological—are decisive in shaping the fate of humanity.<sup>[13]</sup>

Edward Burnett Tylor, pioneer of anthropology, focused on the evolution of culture worldwide, noting that culture is an important part of every society and that it is also subject to the process of evolution. He believed that societies were at different stages of cultural development and that the purpose of anthropology was to reconstruct the evolution of culture, from primitive beginnings to the modern state.

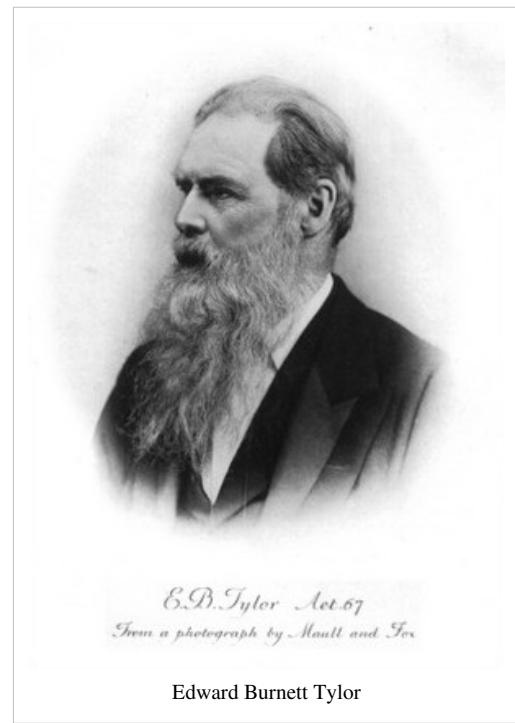
Anthropologists Sir E.B. Tylor in England and Lewis Henry Morgan in the United States worked with data from indigenous people, who they claimed represented earlier stages of cultural evolution that gave insight into the process and progression of evolution of culture. Morgan would later have a significant influence on Karl Marx and Friedrich Engels, who developed a theory of sociocultural evolution in which the internal contradictions in society created a series of escalating stages that ended in a socialist society (see Marxism). Tylor and Morgan elaborated the theory of unilinear evolution, specifying criteria for categorising cultures according to their standing within a fixed system of growth of humanity as a whole and examining the modes and mechanisms of this growth. Theirs was often a concern with culture in general, not with individual cultures.

Their analysis of cross-cultural data was based on three assumptions:

1. contemporary societies may be classified and ranked as more "primitive" or more "civilized";
2. There are a determinate number of stages between "primitive" and "civilized" (e.g. band, tribe, chiefdom, and state),
3. All societies progress through these stages in the same sequence, but at different rates.

Theorists usually measured progression (that is, the difference between one stage and the next) in terms of increasing social complexity (including class differentiation and a complex division of labour), or an increase in intellectual, theological, and aesthetic sophistication. These 19th-century ethnologists used these principles primarily to explain differences in religious beliefs and kinship terminologies among various societies.

Lester Frank Ward, sometimes referred to as the "father" of American sociology, rejected many of Spencer's theories regarding the evolution of societies. Ward, who was also a botanist and a paleontologist, believed that the law of evolution functioned much differently in human societies than it did in the plant and animal kingdoms, and theorized that the "law of nature" had been superceded by the "law of the mind".<sup>[15]</sup> He stressed that humans, driven by emotions, create goals for themselves and strive to realize them (most effectively with the modern scientific method) whereas there is no such intelligence and awareness guiding the non-human world.<sup>[16]</sup> Plants and animals adapt to nature; man shapes nature. While Spencer believed that competition and 'survival of the fittest' benefited human society and socio/cultural evolution, Ward considered competition to be a destructive force, and he pointed out that all human institutions, traditions and laws were tools invented by the mind of man and, like all tools, they were designed to "meet and checkmate" the unrestrained competition of natural forces.<sup>[15]</sup> Ward agreed with Spencer that authoritarian governments repress the talents of the individual, but he believed that modern democratic societies, in which role of religion was minimized and that of science was maximized, could effectively support the individual in his or her attempt to fully utilize their talents and achieve happiness. He believed that there were four stages to the evolutionary processes. First, there is cosmogenesis, creation and evolution of the world. Then, when life arises, there is biogenesis.<sup>[16]</sup> Development of humanity leads to anthropogenesis, which is influenced by the human mind.<sup>[16]</sup> Finally, there is sociogenesis, which is the science of shaping the evolutionary process itself to optimize progress, human happiness and individual self-actualization.<sup>[16]</sup> While Ward believed that modern societies were superior to "primitive" societies (one need only look to the impact of medical science on health and lifespan) he rejected theories of white supremacy; he supported the Out-of-Africa theory of human evolution and believed that all races and social classes were equal in talent.<sup>[17]</sup> However, Ward did not think that evolutionary progress was inevitable and he feared the degeneration of societies and cultures, which was very evident in the historical



Edward Burnett Tylor

record.[18] Ward also did not favor the radical reshaping of society as proposed by the supporters of the eugenics movement and by the followers of Karl Marx; like Comte, Ward believed that sociology was the most complex of the sciences and that true sociogenesis was impossible without considerable research and experimentation.[17]



Émile Durkheim

Émile Durkheim, another of the "fathers" of sociology, developed a dichotomous view of social progress.<sup>[16]</sup> His key concept was social solidarity, as he defined social evolution in terms of progressing from mechanical solidarity to organic solidarity.<sup>[16]</sup> In mechanical solidarity, people are self-sufficient, there is little integration and thus there is the need for use of force and repression to keep society together.<sup>[16]</sup> In organic solidarity, people are much more integrated and interdependent and specialisation and cooperation is extensive.<sup>[16]</sup> Progress from mechanical to organic solidarity is based first on population growth and increasing population density, second on increasing "morality density" (development of more complex social interactions) and thirdly, on the increasing specialisation in workplace.<sup>[16]</sup> To Durkheim, the most important factor in the social progress is the division of labour.<sup>[16]</sup>

Ferdinand Tönnies describes evolution as the development from informal society, where people have many liberties and there are few laws and obligations, to modern, formal rational society, dominated by traditions and laws and people are restricted from

acting as they wish.<sup>[19]</sup> He also notes that there is a tendency of standardisation and unification, when all smaller societies are absorbed into a single, large, modern society.<sup>[19]</sup> Thus Tönnies can be said to describe part of the process known today as globalization. Tönnies was also one of the first sociologists to claim that the evolution of society is not necessarily going in the right direction, that social progress is not perfect, and it can even be called a regression as the newer, more evolved societies are obtained only after paying a high cost, resulting in decreasing satisfaction of individuals making up that society.<sup>[19]</sup> Tönnies' work became the foundation of neoevolutionism.<sup>[19]</sup>

Although not usually counted as a sociocultural evolutionist, Max Weber's theory of tripartite classification of authority can be viewed as an evolutionary theory as well. Weber distinguishes three ideal types of political leadership, domination and authority: charismatic domination (familial and religious), traditional domination (patriarchs, patrimonialism, feudalism) and legal (rational) domination (modern law and state, bureaucracy). He also notes that legal domination is the most advanced, and that societies evolve from having mostly traditional and charismatic authorities to mostly rational and legal ones.

## Critique and impact on modern theories

The early 20th century inaugurated a period of systematic critical examination, and rejection of the sweeping generalisations of the unilineal theories of sociocultural evolution. Cultural anthropologists such as Franz Boas, along with his students, including Ruth Benedict and Margaret Mead, are regarded as the leaders of anthropology's rejection of classical social evolutionism.

They used sophisticated ethnography and more rigorous empirical methods to argue that Spencer, Tylor, and Morgan's theories were speculative and systematically misrepresented ethnographic data. Theories regarding "stages" of evolution were especially criticised as illusions. Additionally, they rejected the distinction between "primitive" and "civilized" (or "modern"), pointing out that so-called primitive contemporary societies have just as much history, and were just as evolved, as so-called civilized societies. They therefore argued that any attempt to use this theory to reconstruct the histories of non-literate (i.e. leaving no historical documents) peoples is entirely

speculative and unscientific.

They observed that the postulated progression, which typically ended with a stage of civilization identical to that of modern Europe, is ethnocentric. They also pointed out that the theory assumes that societies are clearly bounded and distinct, when in fact cultural traits and forms often cross social boundaries and diffuse among many different societies (and is thus an important mechanism of change). Boas in his culture history approach focused on anthropological fieldwork in an attempt to identify factual processes instead of what he criticized as speculative stages of growth. His approach was a major influence on the American anthropology in the first half of the 20th century, and marked a retreat from high-level generalization and "systems building".

Later critics observed that this assumption of firmly bounded societies was proposed precisely at the time when European powers were colonising non-Western societies, and was thus self-serving. Many anthropologists and social theorists now consider unilineal cultural and social evolution a Western myth seldom based on solid empirical grounds. Critical theorists argue that notions of social evolution are simply justifications for power by the elites of society. Finally, the devastating World Wars that occurred between 1914 and 1945 crippled Europe's self-confidence. After millions of deaths, genocide, and the destruction of Europe's industrial infrastructure, the idea of progress seemed dubious at best.

Thus modern sociocultural evolutionism rejects most of classical social evolutionism due to various theoretical problems:

1. The theory was deeply ethnocentric—it makes heavy value judgments on different societies; with Western civilization seen as the most valuable.
2. It assumed all cultures follow the same path or progression and have the same goals.
3. It equated civilization with material culture (technology, cities, etc.)
4. It equated evolution with progress or *fitness*, based on deep misunderstandings of evolutionary theory.

Because social evolution was posited as a scientific theory, it was often used to support unjust and often racist social practices—particularly colonialism, slavery, and the unequal economic conditions present within industrialized Europe. Social Darwinism is especially criticised, as it led to some philosophies used by the Nazis.

## **Max Weber, disenchantment, and critical theory**

Weber's major works in economic sociology and the sociology of religion dealt with the rationalization, secularisation, and so called "disenchantment" which he associated with the rise of capitalism and modernity.<sup>[20]</sup> In sociology, rationalization is the process whereby an increasing number of social actions become based on considerations of teleological efficiency or calculation rather than on motivations derived from morality, emotion, custom, or tradition. Rather than referring to what is genuinely "rational" or "logical", rationalization refers to a relentless quest for goals that might actually function to the *detriment* of a society. Rationalization is an ambivalent aspect of modernity, manifested especially in Western society; as a behaviour of the capitalist market; of rational administration in the state and bureaucracy; of the extension of modern science; and of the expansion of modern technology.



Max Weber in 1917

Weber's thought regarding the rationalizing and secularizing tendencies of modern Western society (sometimes described as the "Weber Thesis") would blend with Marxism to facilitate critical theory, particularly in the work of thinkers such as Jürgen Habermas. Critical theorists, as antipositivists, are critical of the idea of a hierarchy of sciences or societies, particularly with respect to the sociological positivism originally set forth by Comte. Jürgen Habermas has critiqued the concept of pure instrumental rationality as meaning that scientific-thinking becomes something akin to ideology itself. For theorists such as Zygmunt Bauman, rationalization as a manifestation of

modernity may be most closely and regrettably associated with the events of the Holocaust.

## Modern theories

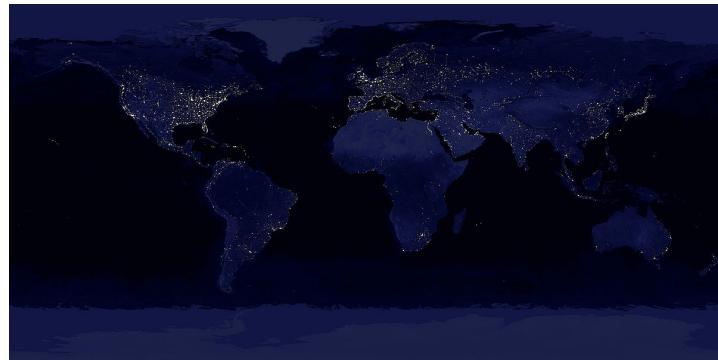
When the critique of classical social evolutionism became widely accepted, modern anthropological and sociological approaches changed respectively. Modern theories are careful to avoid unsourced, ethnocentric speculation, comparisons, or value judgments; more or less regarding individual societies as existing within their own historical contexts. These conditions provided the context for new theories such as cultural relativism and multilineal evolution.

In the 1920s and 1930s, Gordon Childe revolutionized the study of cultural evolutionism. He conducted a comprehensive pre-history account that provided scholars with evidence for African and Asian cultural transmission into Europe. He combated scientific racism by finding the tools and artifacts of the indigenous people from Africa and Asia and showed how they influenced the technology of European culture. Evidence from his excavations countered the idea of Aryan supremacy and superiority. Childe explained cultural evolution by his theory of divergence with modifications of convergence. He postulated that different cultures form separate methods that meet different needs, but when two cultures were in contact they developed similar adaptations, solving similar problems. Rejecting Spencer's theory of parallel cultural evolution, Childe found that interactions between cultures contributed to the convergence of similar aspects most often attributed to one culture. Childe placed emphasis on human culture as a social construct rather than products of environmental or technological contexts. Childe coined the terms "Neolithic Revolution", and "Urban Revolution" which are still used today in the branch of pre-historic anthropology.

In 1941 anthropologist Robert Redfield wrote about a shift from 'folk society' to 'urban society'. By the 1940s cultural anthropologists such as Leslie White and Julian Steward sought to revive an evolutionary model on a more scientific basis, and succeeded in establishing an approach known as neoevolutionism. White rejected the opposition between "primitive" and "modern" societies but did argue that societies could be distinguished based on the amount of energy they harnessed, and that increased energy allowed for greater social differentiation (White's law). Steward on the other hand rejected the 19th-century notion of progress, and instead called attention to the Darwinian notion of "adaptation", arguing that all societies had to adapt to their environment in some way.

The anthropologists Marshall Sahlins and Elman Service prepared an edited volume, *Evolution and Culture*, in which they attempted to synthesise White's and Steward's approaches.<sup>[21]</sup> Other anthropologists, building on or responding to work by White and Steward, developed theories of cultural ecology and ecological anthropology. The most prominent examples are Peter Vayda and Roy Rappaport. By the late 1950s, students of Steward such as Eric Wolf and Sidney Mintz turned away from cultural ecology to Marxism, World Systems Theory, Dependency theory and Marvin Harris's Cultural materialism.

Today most anthropologists reject 19th-century notions of progress and the three assumptions of unilineal evolution. Following Steward, they take seriously the relationship between a culture and its environment to explain different aspects of a culture. But most modern cultural anthropologists have adopted a general systems approach, examining cultures as emergent systems and argue that one must consider the whole social environment, which includes



Composite image of the Earth at night, created by NASA and NOAA. The brightest areas of the Earth are the most urbanized, but not necessarily the most populated. Even more than 100 years after the invention of the electric light, most regions remain thinly populated or unlit.

political and economic relations among cultures. As a result of simplistic notions of "progressive evolution", more modern, complex cultural evolution theories (such as Dual Inheritance Theory, discussed below) receive little attention in social sciences, having given way in some cases to a series of more humanist approaches. Some reject the entirety of evolutionary thinking and look instead at historical contingencies, contacts with other cultures, and the operation of cultural symbol systems. In the area of development studies, authors such as Amartya Sen have developed an understanding of "development" and 'human flourishing' that also question more simplistic notions of progress, while retaining much of their original inspiration.

## Neoevolutionism

Neoevolutionism was the first in a series of modern multilineal evolution theories. It emerged in the 1930s and extensively developed in the period following the Second World War and was incorporated into both anthropology and sociology in the 1960s. It bases its theories on empirical evidence from areas of archaeology, palaeontology and historiography and tries to eliminate any references to systems of values, be it moral or cultural, instead trying to remain objective and simply descriptive.<sup>[22]</sup>

While 19th-century evolutionism explained how culture develops by giving general principles of its evolutionary process, it was dismissed by the Historical Particularists as unscientific in the early 20th century. It was the neoevolutionary thinkers who brought back evolutionary thought and developed it to be acceptable to contemporary anthropology.

Neoevolutionism discards many ideas of classical social evolutionism, namely that of social progress, so dominant in previous sociology evolution-related theories.<sup>[22]</sup> Then neoevolutionism discards the determinism argument and introduces probability, arguing that accidents and free will greatly affect the process of social evolution.<sup>[22]</sup> It also supports counterfactual history—asking "what if" and considering different possible paths that social evolution may take or might have taken, and thus allows for the fact that various cultures may develop in different ways, some skipping entire stages others have passed through.<sup>[22]</sup> Neoevolutionism stresses the importance of empirical evidence. While 19th-century evolutionism used value judgments and assumptions for interpreting data, neoevolutionism relied on measurable information for analysing the process of sociocultural evolution.

Leslie White, author of *The Evolution of Culture: The Development of Civilization to the Fall of Rome* (1959), attempted to create a theory explaining the entire history of humanity.<sup>[22]</sup> The most important factor in his theory is technology.<sup>[22]</sup> *Social systems are determined by technological systems*, wrote White in his book,<sup>[23]</sup> echoing the earlier theory of Lewis Henry Morgan. He proposes a society's energy consumption as a measure of its advancement.<sup>[22]</sup> He differentiates between five stages of human development.<sup>[22]</sup> In the first, people use the energy of their own muscles.<sup>[22]</sup> In the second, they use the energy of domesticated animals.<sup>[22]</sup> In the third, they use the energy of plants (so White refers to agricultural revolution here).<sup>[22]</sup> In the fourth, they learn to use the energy of natural resources: coal, oil, gas.<sup>[22]</sup> In the fifth, they harness nuclear energy.<sup>[22]</sup> White introduced a formula,  $P=E*T$ , where E is a measure of energy consumed, and T is the measure of efficiency of technical factors utilising the energy.<sup>[22]</sup> This theory is similar to Russian astronomer Nikolai Kardashev's later theory of the Kardashev scale.

Julian Steward, author of *Theory of Culture Change: The Methodology of Multilinear Evolution* (1955, reprinted 1979), created the theory of "multilinear" evolution which examined the way in which societies adapted to their environment. This approach was more nuanced than White's theory of "unilinear evolution." Steward rejected the 19th-century notion of progress, and instead called attention to the Darwinian notion of "adaptation", arguing that all societies had to adapt to their environment in some way. He argued that different adaptations could be studied through the examination of the specific resources a society exploited, the technology the society relied on to exploit these resources, and the organization of human labour. He further argued that different environments and technologies would require different kinds of adaptations, and that as the resource base or technology changed, so too would a culture. In other words, cultures do not change according to some inner logic, but rather in terms of a changing relationship with a changing environment. Cultures therefore would not pass through the same stages in the

same order as they changed—rather, they would change in varying ways and directions. He called his theory "multilineal evolution". He questioned the possibility of creating a social theory encompassing the entire evolution of humanity; however, he argued that anthropologists are not limited to describing specific existing cultures. He believed that it is possible to create theories analysing typical common culture, representative of specific eras or regions. As the decisive factors determining the development of given culture he pointed to technology and economics, but noted that there are secondary factors, like political system, ideologies and religion. All those factors push the evolution of a given society in several directions at the same time; hence the application of the term "multilinear" to his theory of evolution.

Marshall Sahlins, co-editor with Elman Service of *Evolution and Culture* (1960), divided the evolution of societies into 'general' and 'specific'.<sup>[24]</sup> General evolution is the tendency of cultural and social systems to increase in complexity, organization and adaptiveness to environment.<sup>[24]</sup> However, as the various cultures are not isolated, there is interaction and a diffusion of their qualities (like technological inventions).<sup>[24]</sup> This leads cultures to develop in different ways (specific evolution), as various elements are introduced to them in different combinations and at different stages of evolution.<sup>[24]</sup>

In his *Power and Prestige* (1966) and *Human Societies: An Introduction to Macrosociology* (1974), Gerhard Lenski expands on the works of Leslie White and Lewis Henry Morgan.<sup>[24]</sup> He views technological progress as the most basic factor in the evolution of societies and cultures.<sup>[24]</sup> Unlike White, who defined technology as the ability to create and utilise energy, Lenski focuses on information—its amount and uses.<sup>[24]</sup> The more information and knowledge (especially allowing the shaping of natural environment) a given society has, the more advanced it is.<sup>[24]</sup> He distinguishes four stages of human development, based on advances in the history of communication.<sup>[24]</sup> In the first stage, information is passed by genes.<sup>[24]</sup> In the second, when humans gain sentience, they can learn and pass information through experience.<sup>[24]</sup> In the third, humans start using signs and develop logic.<sup>[24]</sup> In the fourth, they can create symbols and develop language and writing.<sup>[24]</sup> Advancements in the technology of communication translate into advancements in the economic system and political system, distribution of goods, social inequality and other spheres of social life. He also differentiates societies based on their level of technology, communication and economy: (1) hunters and gatherers, (2) agricultural, (3) industrial, and (4) special (like fishing societies).<sup>[24]</sup>

Talcott Parsons, author of *Societies: Evolutionary and Comparative Perspectives* (1966) and *The System of Modern Societies* (1971) divided evolution into four subprocesses: (1) division, which creates functional subsystems from the main system; (2) adaptation, where those systems evolve into more efficient versions; (3) inclusion of elements previously excluded from the given systems; and (4) generalization of values, increasing the legitimization of the ever more complex system.<sup>[25]</sup> He shows those processes on 4 stages of evolution: (I) primitive or foraging, (II) archaic agricultural, (III) classical or "historic" in his terminology, using formalized and universalizing theories about reality and (IV) modern empirical cultures. However, these divisions in Parsons theory is the more formal ways in which the evolutionary process is conceptualized and should not be mistaken for with Parsons' actual theory. Parsons develops a theory, where he tries to reveal the complexity of the processes which take form between two points of necessity, the first is the cultural "necessity," which is given through the values-system of each evolving community; the other is the environmental necessities, which most directly is reflected in the material realities of the basic production system and reflected in the relative capacity of each industrial-economical level at each window of time. Generally, Parsons highlights that the dynamics and directions of these process is shaped by the cultural imperative embodied in the cultural heritage and more secondary an outcome of sheer "economic" conditions.

## Sociobiology

Sociobiology departs perhaps the furthest from classical social evolutionism.<sup>[26]</sup> It was introduced by Edward Wilson in his 1975 book *Sociobiology: The New Synthesis* and followed his adaptation of evolutionary theory to the field of social sciences. Wilson pioneered the attempt to explain the evolutionary mechanics behind social behaviours such as altruism, aggression, and nurturance.<sup>[26]</sup> In doing so, Wilson sparked one of the greatest scientific controversies of the 20th century.<sup>[26]</sup>

The current theory of evolution, the modern evolutionary synthesis (or neo-darwinism), explains that evolution of species occurs through a combination of Darwin's mechanism of natural selection and Gregor Mendel's theory of genetics as the basis for biological inheritance and mathematical population genetics.<sup>[26]</sup> Essentially, the modern synthesis introduced the connection between two important discoveries; the units of evolution (genes) with the main mechanism of evolution (selection).<sup>[26]</sup>

Due to its close reliance on biology, sociobiology is often considered a branch of the biology and sociology disciplines, although it uses techniques from a plethora of sciences, including ethology, evolution, zoology, archaeology, population genetics, and many others. Within the study of human societies, sociobiology is closely related to the fields of human behavioral ecology and evolutionary psychology.

Sociobiology has remained highly controversial as it contends genes explain specific human behaviours, although sociobiologists describe this role as a very complex and often unpredictable interaction between nature and nurture. The most notable critics of the view that genes play a direct role in human behaviour have been biologists Richard Lewontin and Stephen Jay Gould.

Since the rise of evolutionary psychology, another school of thought, Dual Inheritance Theory, has emerged in the past 25 years that applies the mathematical standards of Population genetics to modeling the adaptive and selective principles of culture. This school of thought was pioneered by Robert Boyd at UCLA and Peter Richerson at UC Davis and expanded by William Wimsatt, among others. Boyd and Richerson's book, *Culture and the Evolutionary Process* (1985),<sup>[27]</sup> was a highly mathematical description of cultural change, later published in a more accessible form in *Not by Genes Alone* (2004).<sup>[28]</sup> In Boyd and Richerson's view, cultural evolution, operating on socially learned information, exists on a separate but co-evolutionary track from genetic evolution, and while the two are related, cultural evolution is more dynamic, rapid, and influential on human society than genetic evolution. Dual Inheritance Theory has the benefit of providing unifying territory for a "nature and nurture" paradigm and accounts for more accurate phenomenon in evolutionary theory applied to culture, such as randomness effects (drift), concentration dependency, "fidelity" of evolving information systems, and lateral transmission through communication.<sup>[29]</sup>

## Theory of modernization

Theories of modernization have been developed and popularized in 1950s and 1960s and are closely related to the dependency theory and development theory.<sup>[30]</sup> They combine the previous theories of sociocultural evolution with practical experiences and empirical research, especially those from the era of decolonization. The theory states that:

- Western countries are the most developed, and rest of the world (mostly former colonies) are on the earlier stages of development, and will eventually reach the same level as the Western world.<sup>[30]</sup>
- Development stages go from the traditional societies to developed ones.<sup>[30]</sup>
- Third World countries have fallen behind with their social progress and need to be directed on their way to becoming more advanced.<sup>[30]</sup>

Developing from classical social evolutionism theories, theory of modernization stresses the modernization factor: many societies are simply trying (or need to) emulate the most successful societies and cultures.<sup>[30]</sup> It also states that it is possible to do so, thus supporting the concepts of social engineering and that the developed countries can and should help those less developed, directly or indirectly.<sup>[30]</sup>

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Among the scientists who contributed much to this theory are Walt Rostow, who in his *The Stages of Economic Growth: A Non-Communist Manifesto* (1960) concentrates on the economic system side of the modernization, trying to show factors needed for a country to reach the path to modernization in his Rostovian take-off model.<sup>[30]</sup> David Apter concentrated on the political system and history of democracy, researching the connection between democracy, good governance and efficiency and modernization.<sup>[30]</sup> David McClelland (*The Achieving Society*, 1967) approached this subject from the psychological perspective, with his motivations theory, arguing that modernization cannot happen until given society values innovation, success and free enterprise.<sup>[30]</sup> Alex Inkeles (*Becoming Modern*, 1974) similarly creates a model of *modern personality*, which needs to be independent, active, interested in public policies and cultural matters, open for new experiences, rational and being able to create long-term plans for the future.<sup>[30]</sup> Some works of Jürgen Habermas are also connected with this subfield.

Theory of modernization has been subject to some criticism similar to that levied on classical social evolutionism, especially for being too ethnocentric, one-sided and focused on the Western world and culture.

## Prediction for a stable cultural and social future

Cultural evolution follows punctuated equilibrium which Gould and Eldredge developed for biological evolution. Bloomfield<sup>[31]</sup> <sup>[32]</sup> has written that human societies follow punctuated equilibrium which would mean first, a stable society, a transition resulting in a subsequent stable society with greater complexity. Using these guidelines, mankind has had a stable animal society, a transition to a stable tribal society, another transition to a stable peasant society and is currently in a transitional industrial society.

The status of a human society rests on the productivity of food production. Deevey<sup>[33]</sup> reported on the growth of the number of humans. Deevey also reported on the productivity of food production, noting that productivity changes very little for stable societies, but increases during transitions. When productivity and especially food productivity can no longer be increased, Bloomfield has proposed that man will have achieved a stable automated society.<sup>[34]</sup> Space is also assumed to allow for the continued growth of the human population, as well as provide a solution to the current pollution problem by providing limitless energy from solar satellite power stations.

## Theory of postindustrial society

Scientists have used the theory of evolution to analyze various trends and to predict the future development of societies. These scientists have created the theories of postindustrial societies, arguing that the current era of industrial society is coming to an end, and services and information are becoming more important than industry and goods.<sup>[35]</sup>

In 1974, sociologist Daniel Bell, author of *The Coming of Post-Industrial Society*, introduced the concept of postindustrial society.<sup>[35]</sup> He divided the history of humanity into three eras: pre-industrial, industrial and postindustrial.<sup>[35]</sup> He predicted that by the end of the 20th century, United States, Japan and Western Europe would reach the postindustrial stage.<sup>[35]</sup> This "post-industrial" stage would be demonstrated by:

- domination of the service sector (administration, banking, trade, transport, healthcare, education, science, mass media, culture) over the traditional industry sector (manufacturing industries, which have surpassed the more traditional, agriculture and mining sector after the 19th-century Industrial Revolution)<sup>[35]</sup>
- growing importance of information technologies<sup>[35]</sup>
- increased role of long-term planning, modelling future trends<sup>[35]</sup>
- domination of technocracy and pragmatism over traditional ethics and ideologies<sup>[35]</sup>
- increasing importance and use of technology and intellect<sup>[35]</sup>
- changes in the traditional hierarchy of social classes, with highly educated specialists and scientists overtaking the traditional bourgeois<sup>[35]</sup>

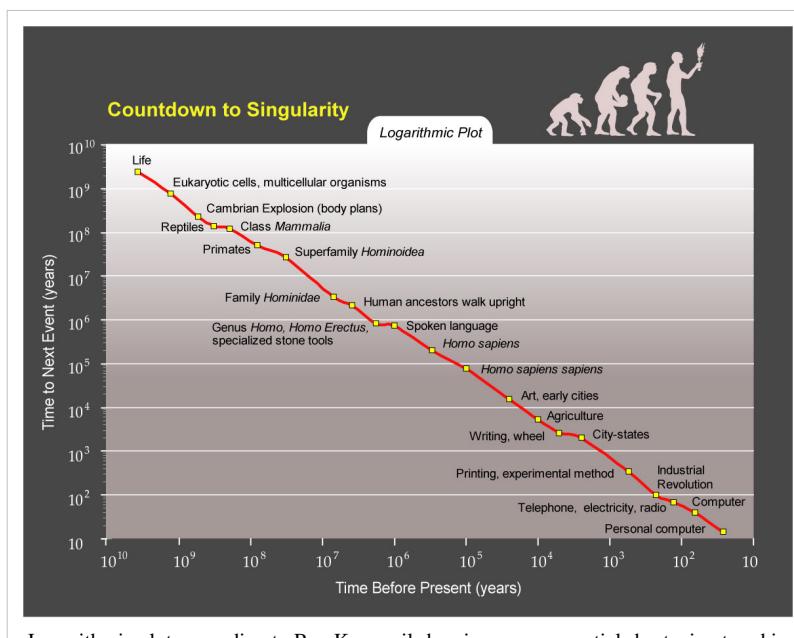
From the 1970s many other sociologists and anthropologists, like Alvin Toffler (*Future Shock*, 1970), and John Naisbitt (*Megatrends 2000: The New Directions for the 1990s*, 1982) have followed in Bell's footsteps and created

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similar theories. John Naisbitt introduced the concept of megatrends: powerful, global trends that are changing societies on the worldwide scale.<sup>[35]</sup> Among the megatrends that he mentions was the process of globalization.<sup>[35]</sup> Another important megatrend was the increase in performance of computers and the development of the World Wide Web.<sup>[35]</sup> Marshall McLuhan introduced the concept of the global village (*The Gutenberg Galaxy*, 1962), and this term was soon adapted by the researchers of globalization and the Internet.<sup>[35]</sup> Naisbitt and many other proponents of the theory of postindustrial societies argues that those megatrends lead to decentralization, weakening of the central government, increasing importance of local initiatives and direct democracy, changes in the hierarchy of the traditional social classes, development of new social movements and increased powers of consumers and number of choices available to them (Toffler even used the term "overchoice").<sup>[35]</sup>

Some of the more extreme visions of the postindustrial society are those related to the theory of the technological singularity. This theory refers to a predicted point or period in the development of a civilization at which due to the acceleration of technological progress, the societal, scientific and economic change is so rapid that nothing beyond that time can be reliably comprehended, understood or predicted by the pre-Singularity humans. Such a singularity was first discussed in the 1950s, and vastly popularized in the 1980s by Vernor Vinge.

Critics of the postindustrial society theory point out that it is very vague<sup>[35]</sup> and as any prediction, there is no guarantee that any of the trends visible today will in fact exist in the future or develop in the directions predicted by contemporary researchers. However, no serious sociologist would argue it is possible to predict the future, but only that such theories allow us to gain a better understanding of the changes taking place in the modernised world.



Logarithmic plot, according to Ray Kurzweil showing an exponential shortening trend in evolution of humanity, basis for the technological singularity theory.

## Contemporary discourse over sociocultural evolution

The Cold War period was marked by rivalry between two superpowers, both of which considered themselves to be the most highly evolved cultures on the planet. The USSR painted itself as a socialist society which emerged out of class struggle, destined to reach the state of communism, while sociologists in the United States (such as Talcott Parsons) argued that the freedom and prosperity of the United States were a proof of a higher level of sociocultural evolution of its culture and society. At the same time, decolonization created newly independent countries who sought to become more developed—a model of progress and industrialization which was itself a form of sociocultural evolution.

There is, however, a tradition in European social theory from Rousseau to Max Weber that argues that this progression coincides with a loss of human freedom and dignity. At the height of the Cold War, this tradition merged with an interest in ecology to influence an activist culture in the 1960s. This movement produced a variety of political and philosophical programs which emphasised the importance of bringing society and the environment into harmony.

Current political theories of the new tribalists consciously mimic ecology and the life-ways of indigenous peoples, augmenting them with modern sciences. Ecoregional Democracy attempts to confine the "shifting groups", or tribes, within "more or less clear boundaries" that a society inherits from the surrounding ecology, to the borders of a naturally occurring ecoregion.

Progress can proceed by competition between but not within tribes, and it is limited by ecological borders or by Natural Capitalism incentives which attempt to mimic the pressure of natural selection on a human society by forcing it to adapt consciously to scarce energy or materials. Gaians argue that societies evolve deterministically to play a role in the ecology of their biosphere, or else die off as failures due to competition from more efficient societies exploiting nature's leverage.

Thus, some have appealed to theories of sociocultural evolution to assert that optimising the ecology and the social harmony of closely knit groups is more desirable or necessary than the progression to "civilization." A 2002 poll of experts on Nearctic and Neotropic indigenous peoples (reported in *Harper's* magazine) revealed that *all of them* would have preferred to be a typical New World person in the year 1491, prior to any European contact, rather than a typical European of that time.

This approach has been criticised by pointing out that there are a number of historical examples of indigenous peoples doing severe environmental damage (such as the deforestation of Easter Island and the extinction of mammoths in North America) and that proponents of the goal have been trapped by the European stereotype of the noble savage.

Today, postmodernists question whether the notions of evolution or society have inherent meaning and whether they reveal more about the person doing the description than the thing being described. Observing and observed cultures may lack sufficient cultural similarities (such as a common foundation ontology) to be able to communicate their respective priorities easily. Or, one may impose such a system of belief and judgment upon another, via conquest or colonization. For instance, observation of very different ideas of mathematics and physics in indigenous peoples led indirectly to ideas such as George Lakoff's "cognitive science of mathematics", which asks if measurement systems themselves can be objective.

## Notes

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- [6] Richard Dawkins, *The Selfish Gene*, p. 190.
- [7] Sztompka, Piotr, *Socjologia*, Znak, 2002, ISBN 83-240-0218-9, p.491
- [8] Sztompka, Piotr, *Socjologia*, Znak, 2002, ISBN 83-240-0218-9, p.495
- [9] Sztompka, Piotr, *Socjologia*, Znak, 2002, ISBN 83-240-0218-9, p.498-499
- [10] "The Philosophy Of Positivism (<http://radicalacademy.com/adiphilosophy.htm>)". *Adventures in Philosophy*.
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- [14] Morgan, Lewis H.(1877) " Chapter III: Ratio of Human Progress (<http://www.marxists.org/reference/archive/morgan-lewis/ancient-society/ch03.htm>)". *Ancient Society*.
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- [16] Sztompka, Piotr, *Socjologia*, Znak, 2002, ISBN 83-240-0218-9, p.500-501
- [17] <http://books.google.com/books?ei=obeETY7LJpDLtwf-jvnnCw&ct=result&id=WUucYTW6ug0C&dq=gosset+race&q=lester+ward>

- [18] [http://books.google.com/books?id=KmFJAAAAIAAJ&dq=personal+ward&source=gbs\\_navlinks\\_s](http://books.google.com/books?id=KmFJAAAAIAAJ&dq=personal+ward&source=gbs_navlinks_s)
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## **Readings from an evolutionary anthropological perspective**

- Two special issues on the evolution of culture:
  - Evolutionary Anthropology: Issues, News, and Reviews Volume 12, Issue 2, Pages 57–108 (April 2003) (<http://www3.interscience.wiley.com/cgi-bin/jissue/104520093>)
    - The evolution of culture: New perspectives and evidence (<http://faculty.washington.edu/easmith/Janson&Smith2003-EA.pdf>) (p 57–60) Charles H. Janson, Eric A. Smith
    - Making space for traditions ([http://www.uga.edu/psychology/primate/pub/Making Space for Traditions 2003 DMF.pdf](http://www.uga.edu/psychology/primate/pub/Making%20Space%20for%20Traditions%202003%20DMF.pdf)) (p 61–70) Dorothy Fragaszy
    - Traditions in monkeys (p 71–81) Susan Perry, Joseph H. Manson
    - Is culture a golden barrier between human and chimpanzee? ([http://anthropology.tamu.edu/faculty/alvard/anth630/reading/Week 11 Culture and intelligence 1/Boesch 2003.pdf](http://anthropology.tamu.edu/faculty/alvard/anth630/reading/Week%2011%20Culture%20and%20intelligence%201/Boesch%202003.pdf)) (p 82–91) Christophe Boesch
    - Cultural panthropology (p 92–105) Andrew Whiten, Victoria Horner, Sarah Marshall-Pescini
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    - On stony ground: Lithic technology, human evolution, and the emergence of culture ([http://www.human-evol.cam.ac.uk/Members/Foley/pubs/03ea-12\(109-122\).pdf](http://www.human-evol.cam.ac.uk/Members/Foley/pubs/03ea-12(109-122).pdf)) (p 109–122) Robert Foley, Marta Mirazón Lahr

- The evolution of cultural evolution ([http://xcelab.net/rmpubs/henrich\\_mcelreath\\_EA\\_2003.pdf](http://xcelab.net/rmpubs/henrich_mcelreath_EA_2003.pdf)) (p 123–135) Joseph Henrich, Richard McElreath
- The adaptive nature of culture (<http://anthropology.tamu.edu/faculty/alvard/downloads/culture.pdf>) (p 136–149) Michael S. Alvard
- Do animals have culture? ([http://anthropology.tamu.edu/faculty/alvard/ANTH689\\_Fall\\_2005/week\\_4/Laland\\_and\\_Hopitt\\_2003.pdf](http://anthropology.tamu.edu/faculty/alvard/ANTH689_Fall_2005/week_4/Laland_and_Hopitt_2003.pdf)) (p 150–159) Kevin N. Laland, William Hoppitt

## External links

- model of Common Law as an evolutionary system ([http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=270593](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=270593))
- Evolution and Culture The Missing Link (<http://www.percepp.com/evltcult.htm>)
- Introduction to Social Evolutionism at the University of Alabama (<http://www.as.ua.edu/ant/Faculty/murphy/evol.htm>)
- Sociocultural evolution on Principia Cybernetica Web (<http://pespmc1.vub.ac.be/SOCEVOL.html>)
- Comte and the philosophy of positivism (<http://radicalacademy.com/adiphilpositivism.htm>)
- Lewis Morgan 'Ancient Societies' online (<http://www.marxists.org/reference/archive/morgan-lewis/ancient-society/>). See chapter 3 (<http://www.marxists.org/reference/archive/morgan-lewis/ancient-society/ch03.htm>) for his savagery/barbarism/civilisation theory
- Classical Sociological Theory: Comte and Spencer ([http://highered.mcgraw-hill.com/sites/0072824301/student\\_view0/chapter4/chapter\\_summary.html](http://highered.mcgraw-hill.com/sites/0072824301/student_view0/chapter4/chapter_summary.html))
- Secular Cycles and Millennial Trends (<http://repositories.cdlib.org/imbs/socdyn/wp/wp6/>)
- (Indonesian) Indonesian Archipelago Cultural Diversity (<http://www.budaya-indonesia.org/>): the evolution of cultural diversity
- The Venus Project (<http://www.thevenusproject.com>)

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