

3 Changing perspectives on evolution

By the 1860s the stage was set for evolutionist anthropology to come into its own within what was then, in Britain as on the Continent, usually called ethnology. It had already done so in archaeology, especially in Denmark. There the three-age theory (Stone Age, Bronze Age, and Iron Age) had been systematically propagated from around 1836 by Christian Jürgensen Thomsen, Sven Nilsson, and others (see, e.g., Trigger 1989: 73–86). Yet what became British anthropology grew not so much from this source, nor from evolutionary ideas in biology, but from questions of the relation between contemporary ‘savage’ or ‘primitive’ societies and Victorian England.

This chapter examines some parallels and disjunctions between the biological and anthropological traditions. It chronicles the rise of evolutionist anthropology, mainly in Britain in the middle of the nineteenth century, and its rapid development as the major paradigm for understanding human society prior to functionalism and relativism. It also covers the return to evolutionist thought in the middle of the twentieth century, mainly in America, and the growth of evolutionist ideas towards the end of the twentieth century.

Essentially, there are just four broad strands of evolutionist thinking in anthropology: unilinear, universal, and multilinear evolutionism, plus neo-Darwinism. The first three have been gradualist approaches, and their labels come from Julian Steward (1955 [1953]: 11–29), a practitioner of multilinear evolutionism. Neo-Darwinism comes in different guises, from 1970s sociobiology and its aftermath to more recent approaches to the origin of symbolic culture.

Biological and anthropological traditions

Encyclopedists of the Middle Ages classified the universe from high to low – God to angels to man; man to apes, and apes to worms; animals to plants. They believed the world was ordered, and they thought they could deduce its order according to principles embodied in the ‘Great Chain of

Being' which united all living things. The term was in use well into the eighteenth century, and arguably the modern theory of evolution is an elaboration of this notion (see Lovejoy 1936).

However, there are two important differences between the Great Chain of Being and the theory of evolution. First, the concept 'evolution' has a temporal as well as a spatial aspect: things change or evolve through time. Secondly, whereas the classic notion of the Great Chain of Being was based on the idea of the fixity of species, the theory of evolution, in its biological form, depends on the contrary notion of the mutability of species. Lower forms evolve into higher forms.

Social evolution has parallels with biological evolution. This is obvious today, in a world where most book-educated people learn biological evolution before they learn of other cultures. It was also obvious in the late nineteenth century, when social advancement was often seen as analogous to biological evolution. However, to view social evolution *merely* in this way would be to invert historical precedent. The widespread acceptance in intellectual circles of the notion of 'progress' predates the theory of evolution as we know it. Eighteenth-century thinkers accepted the idea of the progress of humankind within the framework of biological immutability; it was only in the late nineteenth century that modern notions of social evolution became associated with ideas like 'mutual struggle' or 'survival of the fittest'.

The boundary between the Great Chain of Being and evolutionism is hardly a precise one, and beliefs concerning the mechanisms of biological change were varied. Linnaeus, essentially an anti-evolutionist, believed in a system of hybridization, whereby hybrids constantly form and produce new genera. The comte de Buffon seems to have changed his mind in the course of completing his forty-four-volume *Histoire naturelle* (1749–1804), at first rejecting any ancestral connection between different species, and later moving towards a degenerativist, or anti-evolutionist view. He argued that a small number of pure, ancestral animal forms developed into a multiplicity of less-pure, modern forms.

In *Philosophie zoologique*, Jean-Baptiste de Lamarck (1914 [1809]) suggested that each line of descent evolves to produce more-and-more-sophisticated life forms, but that the earliest forms continue to be reproduced by spontaneous generation. The earliest amoebas, he claimed, evolved into jellyfish. These evolved eventually into fishes, and later to reptiles, then later to mammals. Meanwhile, more recently generated amoebas evolved into jellyfish and fishes, but they will not yet have become reptiles or mammals. More recently still, other amoebas will have reproduced to form jellyfish, but not yet fishes. Lamarck believed that organs improve or decay according to whether they are used to their

potential or not. He also held that individuals acquired characteristics which could be passed on to their descendants. For example, if a girl learned to paint at an early age, later she could pass on such talents to her children in the womb. Plainly, Lamarck had the idea of evolution, but he misunderstood its mechanism.

Charles Darwin (1859) rejected the Lamarckian view. He argued instead that evolution proceeds only through the passing down of what we now call genetic traits. Accidental mutation produced greater variety, and the forms which were most successful in their respective environments would reproduce more efficiently. Darwin, along with Alfred Russel Wallace (who came to similar conclusions), described the mechanism of evolution as 'sexual selection'. Since only those individuals that survive to reproduce will pass on their genes, mutations which enable this survival will be favoured. Isolation encourages greater change, and ultimately the formation of new species. As Darwin's ideas became well known, they came to have wide implications in Western societies, where they were seen as a threat to Christian orthodoxy. Their impact in the social sciences has, of course, been profound too (see Kuper 1994).

However, it would be wrong to see all developments in evolutionist anthropology simply as an extension of Darwinian theory. Evolutionist thinking in anthropology predates Darwin. Darwin published his most 'anthropological' work (he preferred the word 'ethnological'), *The Descent of Man*, in 1871 – the same year as important works by Lewis Henry Morgan and Edward Burnett Tylor. Arguably, Lamarck's theory, though flawed in biology, makes better sense than Darwin's as an analogy to explain gradual, unilinear, or universal, cultural evolution. Although biological traits may not be passed on in the womb as Lamarck thought, nevertheless newly invented cultural traits may be passed rapidly from individual to individual. New culture traits have the capacity to transform existing social relations. Societies become more complex as this process continues.

Unilinear evolutionism

Unilinear evolutionism is the notion that there exists one dominant line of evolution. In other words, all societies pass through the same stages. Since societies will progress at different rates, those societies which have been slower will remain at a 'lower' level than those which progress more rapidly. Of course, all this begs the question of what exactly it means for social institutions to be 'progressing' or 'evolving'. Different unilinear evolutionists have emphasized different things: material culture, means of subsistence, kinship organization, religious beliefs. But unilinear evol-

utionists, in general, believed that these phenomena are interrelated, and that therefore changes, say in means of subsistence, create evolutionary changes in kinship organization, religious belief and practice, and so on.

Maine, Lubbock, and Morgan

The idea of unilinear evolution grew from the early nineteenth-century monogenist theorists, but its high point was in the late nineteenth century, when it stood as the central idea of anthropological thought. The first major issue was that of the *family* versus the *social contract*: the outcome would lead directly to kinship theory, a central stage of anthropological debate ever since.

The social contract had stood for nearly two hundred years as a cornerstone of legal thought. Then, in 1861, Scots-born jurist Sir Henry Maine turned against the idea. He objected to it because of its artificial nature and its use in what he regarded as faulty legal fictions. Recalling his specialized knowledge of Roman law (and assuming its great antiquity), Maine argued that society originates instead in the family and in kinship groups built upon the family. In the absence of much opposition from inside the anthropological fraternity, family and kinship easily emerged victorious. However, this led ultimately to a host of vehement debates about the prehistory of the family and descent systems, and the relation of those systems to 'primitive promiscuity', the idea of 'private property', totemism, and the incest taboo (see Kuper 1988).

About a decade after Maine's book, two sometime politicians from opposite sides of the Atlantic came to prominence as anthropologists. Sir John Lubbock sat in the House of Commons as the Liberal Member of Parliament for London University, and was later elevated to the Peerage as Lord Avebury. He was a banker by profession, and is remembered today for his bill which established 'bank holidays' (so-called because he knew he could get more support among the Conservative opposition by calling them that than by calling them 'workers' holidays'). He also wrote prolifically on anthropology, archaeology, and the natural sciences.

Lewis Henry Morgan's career had certain similarities: success in business coupled with politics, and indeed amateur authorship of books on natural history. He was a part-time railroad tycoon and an upstate New York Republican state senator. His political renown was far less great than Lubbock's. Nevertheless his influence was profoundly ironic – because his key anthropological ideas were taken up by Karl Marx and especially by Friedrich Engels (1972 [1884]). The Republican state senator's emphasis on private property as the driving force of evolution struck a chord with his Communist admirers. In 1871, Lubbock and

Morgan met and discussed such matters, when the latter visited England.

Morgan is remembered primarily for two things. First, he was one of very few theorists of the nineteenth century to conduct serious field research. After a chance encounter with a Western-educated Iroquois named Ely Parker, Morgan was to spend many years working with Iroquois and other Native American peoples. He studied especially their kinship systems and their traditional political institutions, and he was active on their behalf as a campaigner for land rights. Secondly, after his discovery of 'the classificatory system of relationship' (essentially, the classifying of parallel cousins by the same terms as brothers and sisters), he developed a comparative model for the understanding of kinship systems worldwide. This was, in his view, the key to unlocking the prehistory of human society.

Matrilineality versus patrilineality

Most nineteenth-century scholars believed that matrilineality came before patrilineality, but they had different views about the evidence for this and the reasons why one system of unilineal descent might emerge first and the other evolve from it. Lubbock (1874 [1870]) maintained some scepticism about the significance of primitive matrilineality, but he accepted that existing matrilineal societies had evolved along similar lines. He believed that matrilineality had once been more common, when marriage was not fully developed. With fully developed marriage, he believed, property would go from a man to his own children (patrilineally) rather than to his sisters' children (matrilineally). Yet Lubbock also pointed out that in the most 'savage' of societies, marriage is unknown, 'female virtue' is not highly regarded, and women are treated as inferior to men. Thus he could not support the more radical matriarchal theories which were emerging. On the more clearly patrilineal side, Maine (1913 [1861]) had thought the Romans were quite ancient, and they, along with the Hebrews, Greeks, and Teutonic nations, all had patrilineal descent: he saw no reason to look to distant ethnography or to further speculation beyond the works of his predecessors in jurisprudence.

Those who favoured the primacy of matrilineality debated both with the patrilineal theorists and with other matrilineal theorists. Morgan and his arch-enemy John Ferguson McLennan (also a lawyer, and parliamentary draftsman for Scotland) left the patrilineal theorists behind and reserved their most vehement criticisms for each other. The debate centred on the reasons *why* matrilineality might have preceded patrilineality. McLennan (1970 [1865]) thought that a struggle for food in early times led to female infanticide. The resulting shortage of women led

to polyandry (i.e., one woman with several husbands). Members of these ancient societies could not determine the father of any given child, so they came to reckon descent matrilineally. Patrilineality developed later, as men began first to capture, and subsequently to exchange women with men from other bands.

Morgan (1871; 1877) rested his case on kinship terminology – something which McLennan regarded as of little or no significance. Part of Morgan's argument was diffusionist. The Iroquois of New York State and Ontario (with whom Morgan worked in the 1840s and 1850s) had matrilineal descent and inheritance and a relationship terminology similar in some ways to South Asian ones. He noted too that the neighbouring Ojibwa had a terminology of similar structure even though they spoke a very different language. He reasoned that the First Peoples of North America must have migrated from Asia, a fact today firmly established though in his time still one of speculation. He argued, further, that Asian peoples must once have been matrilineal. Their common classification of the father and the father's brother by one relationship term, and their classification of parallel cousins as 'brothers and sisters', implied to Morgan a system of marriage of several brothers to the same woman. From such a system, he reasoned, matrilineal descent emerged.

Morgan believed that relationship terminologies are conservative, and as such reflect ancient social facts. In other words, they preserve hints of past forms of social organization because other aspects of society change faster than the terminology its members use. In his scheme, patrilineality came rather late, with the rise in private property and its associated laws of inheritance, from father to son. The matrilineal Iroquois represented an in-between stage in evolution, before patrilineal descent but long after what he called the stage of 'promiscuous intercourse'. The early phase of promiscuity evolved into a system of cohabitation or intermarriage between brothers and sisters, which gave rise to a 'communal family' and a custom, reported in Hawaii, whereby a group of brothers and their wives, or sisters and their husbands, once held common 'possession' over one another. This was reflected in his own time by the Hawaiian custom of such a kinship grouping still describing their relationship as *pinalua*, or one of intimacy, though no longer maintaining the practice of common sexual possession (if it ever really existed). The relationship terminology system of Hawaiian and other Polynesian languages, in turn, classifies only by generation, with parents and their siblings all called 'father' and 'mother', and both siblings and cousins called 'brother' and 'sister'.

Swiss jurist J. J. Bachofen, in *Das Mutterrecht* (1967 [1861]: 67–210), presented yet another notion of matrilineal pre-eminence. His theory rested on a supposed early feminist movement which overthrew primeval

male dominance. This, he said, was followed by a subsequent resurgence of male authority. Bachofen's evidence involved mainly survivals of notions about female deities (from the matriarchal phase) and the ethnographic discovery of South American *couvade* (from the male overthrow of female authority). This French word designates the custom in which husbands of pregnant wives act as if they are pregnant themselves. Native South Americans reportedly did this in order to deflect malevolent spirits and keep them away from the unborn baby. Bachofen, in fact, here confused matrilineality (descent through the mother) with matriarchy (rule by mothers), but his theory had some following in his own time. It also anticipated more recent revolutionist, and indeed feminist, perspectives on 'primitive society'.

It is important to remember that all these arguments were made *within* the framework of unilinear evolution. There was little concern with cultural diversity for its own sake. To the unilinear evolutionists, cultural diversity was only important as an indicator of different stages within a grand evolutionary scheme. Perhaps the fact that most of the key protagonists were lawyers is significant too. As a pastime they debated over descent as in work they might have argued over competing inheritance claims. The logic and nuance of argument was important to them. There is a real sense in which anthropology as we know it began with law – whether with the notion of natural law (and the social contract) or with the squabbles over family and kinship which, from Maine onwards, became a central focus of the anthropological discourse.

Theories of 'totemism'

In the last quarter of the nineteenth century, though interest in kinship remained strong, other aspects of culture became focal points. Among these was religion, especially *totemism*. A short ethnographic excursion into 'totemism' may help to clarify the points of debate.

'Totemism' is today often written in quotation marks because there is a real question as to whether the category itself represents a single, specific phenomenon. Many have argued that when we talk about totemism, we are actually talking about quite different things in different cultures. However, nineteenth-century writers generally perceived totemism as a worldwide phenomenon, found in Native North and South America, Australia, Asia, Africa, and the Pacific. Arguably, elements of 'totemism' – the symbolic representation of the social by the natural – are found in European thought too, but not to the same degree, and certainly not with the same coherence as in, say, Australian Aboriginal thought. Military

symbolism is one obvious example – calling units or operations by the names of animal species.

The word *totem* is from the Ojibwa. The word was introduced into the English language in 1791 by a British merchant, but the first good description of Ojibwa totemic ideas was in 1856, by one Peter Jones, who was both a Methodist missionary and an Ojibwa chief. The next ethnographer, in 1885, was also an Ojibwa, and all subsequent cross-cultural notions of totemism emanate, at least in part, from these two indigenous accounts (see, e.g., Lévi-Strauss 1969b [1962]). In Ojibwa thought, the *totem* is contrasted to the *manitoo*. The totem is represented by an animal species, and it symbolizes a patrilineal clan. It appears in mythology, and there is a rule that a person cannot marry one who shares his or her totem. The manitoo is also represented by an animal species, but it is the guardian spirit of an individual rather than a group. It comes in dreams, and a person cannot kill or eat his or her manitoo.

Similar notions are found in other cultures, but there are differences. For example, ethnographers of Australia have recorded some six forms of ‘totemism’, with each Aboriginal society possessing some two or three. There are (1) ‘individual totems’ which resemble the manitoos of the Ojibwa, though they often belong specifically to medicine men rather than to ordinary individuals. There are (2) ‘clan totems’, like the totems of the Ojibwa. These can be emblems of patrilineal clans, or of matrilineal ones. There are also (3) phratry totems, a phratry being simply a group of clans; and (4) moiety totems, where society is divided in ‘half’ (French *moitié*), on either patrilineal or matrilineal principles. There are (5) section and subsection totems, these divisions being marriageable categories defined by a combination of descent and generational principles. Finally, there are (6) land-based totems, for example, belonging to spirits of sacred sites. Usually in Australia, all these kinds of totem represent beings whose flesh cannot be eaten *and* whose fellow members cannot be taken as lovers or spouses. So they tend to incorporate the abstract principles of both the Ojibwa manitoos and the Ojibwa totems.

As ethnographic literature on ‘totemism’ grew, especially of the Australian varieties, armchair theorists in Europe used that literature to speculate on the origin and psychological nature of totems. French sociologist Emile Durkheim (1963 [1898]) argued that the most ‘primitive’ of men were in awe of blood and refused to cohabit with females of their respective clans, since they believed that their totemic gods inhabit this clan blood. Scottish folklorists Andrew Lang and Sir James Frazer emphasized the consubstantial relation between a man and his totem. Sir Edward Burnett Tylor saw totemism simply as a special case of ancestor worship. Yet whatever their considerable disagreements, almost all theorists of the

day saw a relation between totemism and exogamy, and most held that totemism had evolved first. Furthermore, by implication at least, almost all of them saw this as an answer to the problem of primal human society, because these evolutionists believed that Australian Aboriginal culture represented a survival of early culture (for further details, see Kuper 1988: 76–122; Barnard 1999). The prime example of ‘primal culture’ had moved from Sir Henry Maine’s Romans to the Aborigines.

Interesting among theories of totemism is that of Sigmund Freud (1960 [1913]: 140–55 *passim*). Though essentially a Lamarckian, he built his theory on the ideas of Darwin and also of theologian William Robertson Smith. What he sought to explain was no less than the origin of totemism, sacrifice, and the incest taboo all at once. Freud imagined a primal horde of males and females in which one male eventually became dominant. This male alone controlled the females, and he alone had sexual access to them. Members of the horde ultimately came to revere him as a god, but the young males resented his authority. They killed him and had sex with their sisters and their mothers. Then they felt guilty for doing such a horrible thing, so, it seems, they invented totemism! More precisely, the alpha-male primate, patriarch of the horde came to be remembered as a totemic being. His descendants invented sacrifices to appease his spirit. They instituted rules forbidding incest to stop the ‘natural’ proclivity of males to mate with their mothers. Thus, according to the Freudian view, the horrible deeds of murder and incest came to be forgotten, though vestiges of it remained deep in the totemic systems of Australian Aborigines, and very deep in the subconscious of all humanity. Freud saw both the Greek myth of Oedipus and the ‘Oedipus complex’ as ‘memories’ of these distant events.

Tylor and Frazer on ‘early’ religion

Religion attracted the attention of several scholars. Two are worthy of special note because of their position in the discipline, their great influence, and indeed for the high quality of their work: Tylor and Frazer. Both had the advantage of great longevity (Tylor lived from 1832 to 1917, and Frazer 1854 to 1941). Thus, for decades, their successive publications and public pronouncements represented the established, unilinear evolutionist view. Especially in Frazer’s case, this view competed with emerging diffusionist, functionalist, and relativist ideas as later generations rebelled against evolutionism.

Sir Edward Tylor’s introduction to anthropology came during a trip to North America. In Havana he met Henry Christie, a gentleman adventurer and like himself an English Quaker, who was about to set off for

Mexico. Tylor went with him and later published his first book on what he found (Tylor 1861). There and in subsequent works, especially *Primitive Culture* (Tylor 1871), Tylor explored the evolution of culture through the doctrine of 'survivals'. The idea is that present-day culture retains elements which have now lost their function, but whose present existence is a testimony to their past importance. Morgan's kinship terminologies are an example. Others, which Tylor was fond of, include items of clothing which formerly were functional but which in his time were only decorative: unused buttons behind the waist of a jacket, or cut-away collars always kept turned down. One of the most curious aspects of Tylor's method was his study of school children in London, for he believed that they, being less mature and less educated, might hold clues to primitive thought. In the realm of religion, he argued that survivals of ancient rituals and beliefs continue long after the original meaning has been forgotten, while the more instinctual and primitive thoughts of civilized humanity may still hold hints of the earlier development of religious ideas.

Tylor's theory of religion consisted of a scheme of evolution from 'animism', the all-embracing doctrine that souls (Latin *animi* or *animae*) exist independently of the material world. He noted that in virtually every human society, there is a common belief in a spiritual essence which survives death. People the world over make offerings to the dead, or to revere things such as trees or streams in which souls are believed to dwell. Tylor postulated that the earliest peoples held this notion through dreams in which souls appeared to them; and that societies eventually developed the practices of making offerings, and later, sacrifices, to such souls, fairies, and deities. He believed that fetishism (when humans control their deities through material objects) and totemism (in which animal or plant species are vested with souls) developed from animism.

In a number of respects, Tylor agreed with Lubbock, though it was in fact the latter who more simply stated the unilinear scheme many nineteenth-century anthropologists seem to have accepted: *atheism* (the absence of definite ideas on a deity), to *fetishism*, to *nature-worship* or *totemism*, to *shamanism* (where deities are believed to be remote and powerful, accessible only through shamans), to *idolatry* (when gods become like men), to *theism* (Lubbock 1874 [1870]: 119). Tylor avoided making such an explicit sequence as this, perhaps because he viewed the evolution of religion as a complex matter, with survivals of earlier stages overlapping with newer ideas and different kinds of animism emerging simultaneously. Tylor's contribution therefore was less substantive and more theoretical and methodological, and as such it still stands as an achievement of evolutionist thought – however flawed the paradigm of unilinear evolutionism may be.

Sir James Frazer was, for most of his career, a classics scholar and Fellow of Trinity College, Cambridge. The University of Liverpool granted him the title of Professor of Social Anthropology in 1907, but he held this as an honorary position. A shy man, he is said to have disliked teaching, but earned sizeable royalties from his voluminous, influential, and widely read books. His *Golden Bough* is one of the great books of anthropology, and it was widely read by generations of intellectuals of all kinds (the young Bronislaw Malinowski, then still a mathematician, read it in order to improve his English). On the surface, *The Golden Bough* represents an attempt to explain the origin and meaning of the slaughter of ancient Italian priest-kings, each by his successor. On a deeper level, it merges myth and history, ethnography and reason, to build a fanciful, poetic overview of the human psyche and social order. *The Golden Bough* was first published in 1890, and expanded to twelve volumes in 1900. Let me quote the final words of the 1922 abridged edition:

Without dipping so far deep into the future we may illustrate the course which thought has hitherto run by likening it to a web woven of three different threads – the black thread of magic, the red thread of religion, and the white thread of science . . . Could we then survey the web of thought from the beginning, we should probably perceive it to be at first a chequer of black and white, a patchwork of true and false notions, hardly tinged as yet by the red thread of religion. But carry your eye farther along the fabric and you will remark that, while the black and white chequer still runs through it, there rests on the middle portion of the web . . . a dark crimson stain, which shades off insensibly into a lighter tint as the white thread of science is woven more and more into the tissue. (Frazer 1922: 713)

What is intriguing here is that while Frazer privileges one realm of culture (namely science) over the others, he nevertheless attributes it to the most primitive as well as the most civilized cultures. From a relativist point of view (see chapter 7), magic in so-called primitive societies may be thought of as nothing more than applied science, or technology. Frazer here sees religion as evolving after primitive science, and modern culture as containing both these threads. This is interesting in light of more recent debates between fundamentalist Christians, who call themselves ‘creation scientists’, and American anthropologists who in their view have blind faith in the ‘false doctrine’ of Darwinism (see, e.g., Williams 1983; Stipe 1985). Both sides claim for themselves the status of ‘scientist’ and claim for science the truth which Frazer also believed it represented.

All the unilinear evolutionists, whether they specialized in kinship or in religion, held a vision of anthropology as a science which tied the present and the past. They sought origins, and they found them among their ‘primitive’ contemporaries. Their methodological flair, however, was

dampened as succeeding generations turned away from the question of origins. Anti-evolutionists turned to diffusion, social function, and cultural diversity. We shall take up those stories later. Yet it is important to see the next phase in evolutionist thought, universal evolutionism, as an attempt to return to grand questions, if not of origins then of universal history.

Universal evolutionism

Universal evolutionism emerged in the early twentieth century as a softening of the tenets of unilinear evolutionism. In light of new ethnographic and archaeological evidence, precise unilinear phases, consistent cross-culturally and throughout the world, could no longer be sustained. So instead, broad, 'universal' phases of evolution were postulated, such as the classical division between 'savagery', 'barbarism', and 'civilization' (championed by Morgan, among others). Debates on matters like matrilineality versus patrilineality were jettisoned as too speculative to merit further consideration. Also thrown aside were the *details* of, for example, Frazer's many analyses of totemism (see especially Frazer 1910: vol. IV), in favour of generalities similar to those of Frazer's passage above, which foreshadowed universal evolutionist thinking. Yet it is of the greatest importance that the universal evolutionism which emerged in the 1930s owed more to Morgan's materialism than to Frazer's quest for the aesthetic and esoteric in the human spirit. The new generation of evolutionists reacted against the functionalist, and especially the relativist bent of most anthropologists of their day (see chapters 5 and 7).

The main proponents of universal evolutionism were Australian archaeologist V. Gordon Childe and American cultural anthropologist Leslie White. Their left-wing political concerns led them to review the theories of Marx and Engels, and those anthropologists, notably Morgan, who had influenced Marx and Engels.

V. Gordon Childe

Childe was prominent as a leftist member of the Australian Labour Party, and his views found no favour in the conservative Australian universities in which he sought employment. He emigrated to Britain in 1921 and travelled widely in Europe before accepting a chair in archaeology, in 1927, at Edinburgh. He later moved to the Institute of Archaeology in London, before returning to Australia to end his days. In Britain Childe achieved fame, both as a field archaeologist and as a theoretician. His ideas became widely accepted within archaeology, where universal evolutionism is perhaps a more natural theory than it is in cultural anthropol-

ogy. The ages of humankind, seen through their technology, are readily apparent in the archaeological record; and Childe's belief that prehistory and history ought to be the same subject, but with different methodologies, was attractive to archaeologists of his time.

Childe wrote many books, but among them two short popular texts stand out as his most influential. *Man Makes Himself* (Childe 1936) examined human history as a whole, and branched out across the continents, whereas his previous work had largely been confined to Europe. It traced evolution from hunting and gathering, to the dawn of agriculture, to the formation of states, the urban revolution and the 'revolution in human knowledge'. *What Happened in History* (Childe 1942), intended as a sequel, turned out to be much more pessimistic. Written during the early part of the Second World War, it suggested that Europe was heading for a new 'dark age' (albeit only a temporary one). At his death in 1957, Childe's desire to see archaeology and universal history established as social sciences was a long way off.

Leslie A. White

White's place as an isolated evolutionist in a sea of relativism (which American anthropology then was) must have been even more problematic than Childe's. For forty years (1930 to 1970) he taught at the University of Michigan, where he gradually built up a following of 'neo-evolutionist' students and colleagues. Although he did publish five ethnographies on Pueblo peoples, White is far better known for his theoretical works. In a series of essays collected as *The Science of Culture* (White 1949), he put forward the notion of culture as an integrated, dynamic, and symbolic system whose most important component is technology. His proposed science, 'culturology', would be the study of that phenomenon. It would steal subject matter from psychology, but it would oppose conventional psychological theory in seeing history as comprised of cultural forces driven by technology. Its relation to sociology would be similar, in that it would explain what sociology, focused as it is on social interaction, could not.

In *The Evolution of Culture* (White 1959), White turned his attention to the course of evolution from the 'Primate Revolution' to the fall of Rome. He argued that 'energy' is the key mechanism of cultural evolution. In the earliest phase, energy existed in the form of the human body alone. Later, men and women harnessed other sources: fire, water, wind, and so on. Advances in the manufacture of tools, in the domestication of animals and plants, and in the intensification of agriculture all increased efficiency and spurred on cultural evolution.

White's style of evolutionism continued after his death through the work of his students. Marshall Sahlins (especially in his early work), Elman Service, and Marvin Harris, among many others, owe an intellectual debt to Leslie White. However, with the dawn of cultural ecology, their vision became more particularistic than White's, and their approaches decidedly more multilinear. It is ironic too that all these later scholars have acknowledged debts to Marx and Engels, whereas White himself remained largely silent on this in his major texts.

Multilinear evolutionism and cultural ecology

Unilinear evolutionism's assertions were problematic, because they were either untestable or (when falsified by ethnographic cases) clearly non-universal. Unilinear evolutionism rested on an assumption that things occur and change everywhere in the world in the same way, if not at the same time. According to a strictly unilinear approach, specific culture changes have but one explanation, though theorists might disagree as to what explanation this might be.

Universal evolutionism was a much less powerful theory precisely because it was harder to debate. Many would agree that technology advances and societies become more complex with time, but what would they do with this information? What was needed was a more sophisticated and more controversial approach.

Julian H. Steward

Multilinear evolutionism was devised by Julian Steward, of the University of Illinois, as an explicit attempt to get away from both the vague generalities of universal evolutionism and the problematic assertions of unilinear evolutionism. It gets around such difficulties by positing diverse trajectories of technological and social evolution in different regions of the world. These trajectories were essentially limited by ecological circumstances, that is, by historical determinations of technology and the very important further limiting factor of the natural environment. Thus multilinear evolutionism became closely bound with the idea of cultural ecology. It also shares a certain similarity with Darwinian thought in biology, by its analogy with the biological theory of speciation.

The main breakthrough came in 1955, when Steward's major essays to that date were published in book form. Although he went on later to look at technologically advanced societies, his ethnographic work on the Shoshone of California and his comparative essays on hunter-gatherers

(which formed the major portion of *Theory of Culture Change*) set the scene. Steward, and later Service (e.g., 1962), propounded the notion that hunter-gatherers developed characteristic ways of exploiting resources to their best advantage not only through technology but also through seasonal migrations, territorial arrangements, and group structures suited to the purpose (see Barnard 1983).

George Peter Murdock

Meanwhile, a quite different but equally multilinear and ecological approach was being developed by George Peter Murdock, first at Yale and later at Pittsburgh. Murdock founded the Cross-Cultural Survey, later the Human Relations Area Files, through which he tried to assemble cultural facts from all the cultures of the world. His purpose was to enable scholars to correlate the distribution of culture traits and work out historical trajectories both in general and for particular culture areas or similar culture types. His best known work was the somewhat mis-titled monograph *Social Structure* (1949), which employed a sample of 250 representative societies for such a purpose. A handful of other scholars followed, notably Melvin Ember and Carol Ember at the Human Relations Area Files (New Haven Connecticut), and in some of his work, Jack Goody at Cambridge.

Let me illustrate the method and theory Murdock espoused with an example. It had been known before Murdock's work that certain rules of descent are more commonly found with certain patterns of postmarital residence, for example, patrilineal descent with virilocal residence (with the husband), or matrilineal descent with either uxorilocal (with the wife) or viri-avunculocal residence (with the husband's mother's brother). Murdock established more precisely statistical correlations between such patterns, and then sought to explain the reasons behind them, and relate them statistically to other patterns, such as means of subsistence and kinship terminologies.

Supposing, let us say, hoe agriculture is commonly practised by women. Women in such a society might tend to pass on both their skills and their fields to their daughters, who would bring in their husbands upon marriage. *De facto* matrilineal groups would be established, and an ideology of matrilineal descent might be expected to emerge. Matrilineal descent is further correlated either with what Murdock called 'Iroquois-type terminology', in which cross-cousins are distinguished from parallel cousins, or with 'Crow-type terminology', in which, in addition, father's sister and father's sister's daughter are called by the same term. The apparent reason for this peculiarity is that a person's father's sisters and

father's sisters' daughters would reside in the same locale. If matrilineal descent is recognized, they would also belong to the same matrilineal kin group. Actually, 'Crow-type terminology' makes sense in a strongly matrilineal society, and it would make little sense in most other kinds of society. Murdock reasoned that when modes of descent change, so too should kinship terminologies. Therefore, we can posit a causal, and evolutionary, relationship between these elements of culture.

Neo-Darwinism

Neo-Darwinism is a broad set of perspectives comprising two basic and very different schools of thought: sociobiology and what might be called 'revolutionist' (as opposed to narrowly evolutionist) thinking. The former tradition is in continuity with biology. The latter takes up the nineteenth-century quest for origins and even returns to nineteenth-century interests in totemism and primitive promiscuity.

Sociobiology

By the late 1970s a new grand evolutionist tradition was encroaching on the social sciences, especially in the United States. This was 'sociobiology', sparked off by E. O. Wilson's (1975) book by that title – a book which treated human culture and society as simply adjuncts of human-kind's animal nature. Wilson pulled together a variety of strands of biological thinking, and like Darwin considered the implications for the understanding of humanity. Yet unlike Darwin, he took on the whole of human culture. Wilson argued that the application of Darwinian principles makes it possible to explain culture in much the same way as one explains the social life of termites, frogs, or wolves. Analysing anthropological data, he considered the effects of group selection on human warfare, sexual selection on the development of political organization, art as a special manifestation of tool use, ritual music as derivatives of communication, and even ethics as an extension of the desire to pass on one's genes. Altruism within family or community, he suggested, fulfils the function of enabling those who share one's genes to do better than those who do not.

One anthropologist who was influenced by the sociobiology movement was Robin Fox. His approach is interesting because it illustrates clearly the view that human society has its basis in animal sociality. Fox (1975) argued that aspects of human kinship systems are found also among non-human primates. Some primate species have the makings of 'descent' (which he defines as pan-generational relations within a group) while others have only 'alliance' (defined as mating relations between

groups). This argument contradicts the mainstream theory of structuralist anthropology, following Claude Lévi-Strauss (1969a [1949]), that the incest taboo marks the boundary between animals and humans. Only humans have the capability of instituting a taboo. For Lévi-Strauss, the incest taboo is part of (human) nature because it is present in all societies, but it is the essence of culture because it is defined differently from culture to culture. Some cultures, Lévi-Strauss points out, prohibit sex between cross-cousins, while other cultures recognize the category of cross-cousins as precisely the one within which sex is allowed.

However, few anthropologists apart from Fox were taken in, and some reacted strongly against the perceived threat. Among the latter were two influential American scholars of broadly evolutionist persuasion: Marvin Harris and Marshall Sahlins. Harris (1979: 119–40) attacked sociobiology as biological reductionism. Taking on the biologists in their own terms, he pointed out that ‘genotypes never account for all the variations in behavioural phenotype’ (1979: 121): even in simple organisms, learned behaviour is a factor. Culture, as he says, is ‘gene free’. Sahlins, in his devastating little book, *The Use and Abuse of Biology*, pointed out that there was a vast gulf between aggression and war, between sexuality and cross-cousin marriage, and between socially functional ‘reciprocal altruism’ and formalized gift exchange. ‘Within the void left by biology’, as he put it, ‘lies the whole of anthropology’ (Sahlins 1977 [1976]: 16).

Thus sociobiology turned out not to be the ‘new synthesis’ its adherents hailed it as. Its impact may have been great among biologists, but it never succeeded in overtaking anthropology. There was simply too much it left unexplained.

The symbolic revolution?

Revolutionist thinking was, in retrospect, characteristic of many thinkers in the eighteenth century. We also see it in the work of Morgan, Marx, and Engels, and more especially in Freud’s theory of the origin of totemism and Lévi-Strauss’ theory of the incest taboo as the origin of culture. White’s notion of a ‘Primate Revolution’ is also a clear example. Yet it emerged as a paradigm in its own right – at once evolutionist and anti-evolutionist (in the sense that it puts instantaneous change over slow evolution) – only in the 1980s (e.g., Cucchiari 1981). Its central feature today is the search for the origin of symbolic culture, or *culturo-genesis*. It turns Freud on his androcentric head by giving the instigating force of that first human revolution to the females of the species.

One eccentric version of this approach is that of Chris Knight, a British anthropologist who argues that symbolic culture began with a sex strike

Table 3.1. *Evolution (Maine, Morgan, and others) versus revolution (Rousseau, Freud, Knight, and others)*

	Human/animal 'kinship'	Basis of society	Development of ritual
<i>Evolution</i>	continuity	family	gradual, increasing complexity
<i>Revolution</i>	discontinuity	social contract	catastrophic event leading to the invention of ritual, taboo, totemism, and so on.

on the part of anatomically modern women demanding food for sex (see, e.g., Knight 1991; Knight, Power, and Watts 1995). In the 'primal horde' (to use Freud's term) males impregnated females indiscriminately, and the females were left to care for their young themselves. At some point within the last 70,000 years, females – or rather, the women of some specific horde or band – took charge of the situation and collectively demanded that their menfolk hunt for them before sex was allowed. The women symbolized their refusal of sex by menstruating or pretending to menstruate, and they did this together, in synchrony. The period of hunting and sexual taboo was from new moon to full moon, and the period of feasting and sex was between full moon and new moon.

Knight's theory is evolutionist in that it emphasizes the trajectory from pre-symbolic to symbolic-cultural humankind, but the focal point is on instantaneous revolution. Knight's approach to ritual and symbolic activity generally resembles Lévi-Strauss on kinship, and Rousseau on his vision of the social contract as the basis of society. It directly opposes most other theories of evolution on ritual, and implicitly opposes Fox's gradualist view of the relation between human and animal 'kinship', as well as Maine's and Morgan's idea of the family as the basis of society. The problem is that while it is ingenious, it is untestable.

The relation between the most significant of these ideas is illustrated in table 3.1.

Current trends

The debate between gradualists and those who see the origin of symbolic culture as revolutionary is very much the way anthropological evolutionism, in the broad sense, is moving. In Britain, new links are being forged between social anthropology and linguistics, archaeology, and human biology, as all these bear on the issue. This may seem strange in North

America, where these fields have long been seen as anthropological subdisciplines which are moving away from each other.

While some evolutionists today, such as Tim Ingold (e.g., 1986: 16–129) in Britain, and a number of ecological anthropologists in Japan and the United States, are pursuing the boundary between animals and humans, Knight is perusing the boundary between pre-symbolic humanity and humankind as we know it. The former boundary rests on factors such as the social relations of technology use, while the latter rests on affective aspects of culture and society. Clearly, the former is easier to define. While the latter has an intrinsic fascination, its specific theories are essentially untestable and unlikely to survive if presented (as they tend to be) as part of what Leslie White liked to call ‘a scientific theory of culture’.

Concluding summary

Evolutionism in anthropology has parallels with evolutionism in other fields, including archaeology and biology. However, it is also unique in having three classic and easily definable forms: unilinear, universal, and multilinear (though the attribution of these Stewardian ideal types to individual theorists is not always as easy as Steward made out). Unilinear evolutionism took monogenesis for granted and treated cultures as so similar that they would all invent things in the same order and pass through the same stages of development. Universal evolutionism, still characteristic of much thinking in archaeology, recognizes greater complexity than this but seeks to simplify by focusing on the broad, general stages rather than the specifics. Multilinear evolutionism has focused on the specifics of historical development, especially those related to ecological factors. Of the three approaches, it bears the closest relation to the Darwinian notion of evolution.

Bachofen once wrote: ‘Generally speaking, the development of the human race knows no leaps, no sudden progressions, but only gradual transitions; it passes through many stages, each of which may be said to bear within it the preceding and the following stage’ (1967 [1861]: 98). This gradualist statement characterizes much in evolutionist anthropology from the unilinear, to the universal, to the multilinear approaches. Yet it is contradictory to the ideas of both Darwin and Marx (see chapter 6). The debate today between gradualists and revolutionists seems set to continue, whether today’s specific theories of culturo-genesis survive or not.

FURTHER READING

Stocking's *Victorian Anthropology* (1987) and *After Tylor* (1996a) present fine overviews of relevant eras in the history of anthropology in Britain. For more of a social history approach, see Bowler's *The Invention of Progress* (1989). His book on Darwin (Bowler 1990) is also of interest, while Kuper's *The Chosen Primate* (1994) is both lighter in tone and wider in scope.

The classic statement on the three evolutionist approaches in social anthropology is in Steward's *Theory of Culture Change* (1955: 11–29). Harris' critical overview, *The Rise of Anthropological Theory* (1968), has a good deal of relevance; though his negative attitude to those he discusses is not to everyone's liking.

In general, the primary sources cited in this chapter are readable, particularly those by Tylor (1871), Childe (1936; 1942), White (1949; 1959), Steward (1955), and E. O. Wilson (1975). There is also an abridged edition of Wilson's *Sociobiology* (1980).