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THE COLLECTED WORKS OF
Friedrich August Hayek

VOLUME I

THE FATAL CONCEIT
The Errors of Socialism

EDITED BY

W. W. BARTLEY, III

ROUTLEDGE

Since evolutionary theory plays so essential a part in this volume, I should note that one of the promising developments of recent years, leading to a better understanding of the growth and function of knowledge (Popper, 1934/1959), and of complex and spontaneous orders (Hayek, 1964, 1973, 1976, 1979) of various kinds, has been the development of an evolutionary epistemology (Campbell, 1977, 1987; Radnitzky & Bartley, 1987), a theory of knowledge that understands reason and its products as evolutionary developments. In this volume I turn to a set of related problems that, although of great importance, remain largely neglected.

That is, I suggest that we need not only an evolutionary epistemology but also an evolutionary account of moral traditions, and one of a character rather different than hitherto available. Of course the traditional rules of human intercourse, after language, law, markets and money, were the fields in which evolutionary thinking originated. Ethics is the last fortress in which human pride must now bow in recognition of its origins. Such an evolutionary theory of morality is indeed emerging, and its essential insight is that our morals are neither instinctual nor a creation of reason, but constitute a separate tradition - '*between* instinct and reason', as the title of the first chapter indicates - a tradition of staggering importance in enabling us to adapt to problems and circumstances far exceeding our rational capacities. Our moral traditions, like many other aspects of our culture, developed concurrently with our reason, not as its product. Surprising and paradoxical as it may seem to some to say this, these moral traditions outstrip the capacities of reason.

BETWEEN INSTINCT AND REASON

Consuetudo est quasi altera natura.

Cicero

Les lois de la conscience que nous disons naitre de la nature, naissant de la coustume.

M. E. de Montaigne

Zwei Seelen wohnen, ach, in meiner Brust,
Die eine will sich von der anderen trennen.

J. W. von Goethe

Biological and Cultural Evolution

To early thinkers the existence of an order of human activities transcending the vision of an ordering mind seemed impossible. Even Aristotle, who comes fairly late, still believed that order among men could extend only so far as the voice of a herald could reach (*Ethics, IX*, x), and that a state numbering a hundred thousand people was thus impossible. Yet what Aristotle thought impossible had already happened by the time he wrote these words. Despite his achievements as a scientist, Aristotle spoke from his instincts, and not from observation or reflection, when he confined human order to the reach of the herald's cry.

Such beliefs are understandable, for man's instincts, which were fully developed long before Aristotle's time, were not made for the kinds of surroundings, and for the numbers, in which he now lives. They were adapted to life in the small roving bands or troops in which the human race and its immediate ancestors evolved during the few million years while the biological constitution of *homo sapiens* was being formed. These genetically inherited instincts served to steer the cooperation of the members of the troop, a cooperation that was, necessarily, a narrowly circumscribed interaction of fellows known to and trusted by one another. These primitive people were guided by concrete, commonly perceived aims, and by a similar perception of the dangers and opportunities - chiefly sources of food and shelter - of their

environment. They not only could *hear* their herald; they usually *knew* him personally.

Although longer experience may have lent some older members of these bands some authority, it was mainly shared aims and perceptions that coordinated the activities of their members. These modes of coordination depended decisively on instincts of solidarity and altruism - instincts applying to the members of one's own group but not to others. The members of these small groups could thus exist only as such: an isolated man would soon have been a dead man. The primitive individualism described by Thomas Hobbes is hence a myth. The savage is not solitary, and his instinct is collectivist. There was never a `war of all against all'.

Indeed, if our present order did not already exist we too might hardly believe any such thing could ever be possible, and dismiss any report about it as a tale of the miraculous, about what could never come into being. What are chiefly responsible for having generated this extraordinary order, and the existence of mankind in its present size and structure, are the rules of human conduct that gradually evolved (especially those dealing with several property, honesty, contract, exchange, trade, competition, gain, and privacy). These rules are handed on by tradition, teaching and imitation, rather than by instinct, and largely consist of prohibitions ('shalt not's') that designate adjustable domains for individual decisions. Mankind achieved civilisation by developing and learning to follow rules (first in territorial tribes and then over broader reaches) that often forbade him to do what his instincts demanded, and no longer depended on a common perception of events. These rules, in effect constituting a new and different morality, and to which I would indeed prefer to confine the term `morality', suppress or restrain the `natural morality', i.e., those instincts that welded together the small group and secured cooperation within it at the cost of hindering or blocking its expansion.

I prefer to confine the term `morality' to those non-instinctive rules that enabled mankind to expand into an extended order since the concept of morals makes sense only by contrast to impulsive and unreflective conduct on one hand, and to rational concern with specific results on the other. Innate reflexes have no moral quality, and 'sociobiologists' who apply terms like altruism to them (and who should, to be consistent, regard copulation as the most altruistic) are plainly wrong. Only if we mean to say that we *ought* to follow `altruistic' emotions does altruism become a moral concept.

Admittedly, this is hardly the only way to use these terms. Bernard Mandeville scandalized his contemporaries by arguing that `the grand principle that makes us social creatures, the solid basis, the life and support

of all trade and employment without exception' is *evil* (1715/1924), by which he meant, precisely, that the rules of the extended order conflicted with innate instincts that had bound the small group together.

Once we view morals not as innate instincts but as learnt traditions, their relation to what we ordinarily call feelings, emotions or sentiments raises various interesting questions. For instance, although learnt, morals do not necessarily always operate as explicit rules, but may manifest themselves, as do true instincts, as vague disinclinations to, or distastes for, certain kinds of action. Often they tell us how to choose among, or to avoid, inborn instinctual drives.

It may be asked how restraints on instinctual demands serve to coordinate the activities of larger numbers. As an example, continued obedience to the command to treat all men as neighbours would have prevented the growth of an extended order. For those now living within the extended order gain from *not* treating one another as neighbours, and by applying, in their interactions, rules of the extended order - such as those of several property and contract - instead of the rules of solidarity and altruism. An order in which everyone treated his neighbour as himself would be one where comparatively few could be fruitful and multiply. If we were, say, to respond to all charitable appeals that bombard us through the media, this would exact a heavy cost in distracting us from what we are most competent to do, and likely only make us the tools of particular interest groups or of peculiar views of the relative importance of particular needs. It would not provide a proper cure for misfortunes about which we are understandably concerned. Similarly, instinctual aggressiveness towards outsiders must be curbed if identical abstract rules are to apply to the relations of all men, and thus to reach across boundaries - even the boundaries of states.

Thus, forming superindividual patterns or systems of cooperation required individuals to change their `natural' or `instinctual' responses to others, something strongly resisted. That such conflicts with inborn instincts, `private vices', as Bernard Mandeville described them, might turn out to be `public benefits', and that men had to restrain some `good' instincts in order to develop the extended order, are conclusions that became the source of dissension later too. For example, Rousseau took the side of the `natural' although his contemporary Hume clearly saw that `so noble an affection [as generosity] instead of fitting men for large societies, is almost as contrary to them, as the most narrow selfishness' (1739/1886:11, 270).

Constraints on the practices of the small group, it must be emphasised and repeated, are *hated*. For, as we shall see, the individual

following them, even though he depend on them for life, does not and usually cannot understand how they function or how they benefit him. He knows so many objects that seem desirable but for which he is not permitted to grasp, and he cannot see how other beneficial features of his environment depend on the discipline to which he is forced to submit - a discipline forbidding him to reach out for these same appealing objects. Disliking these constraints so much, we hardly can be said to have selected them; rather, these constraints selected us: they enabled us to survive.

It is no accident that many abstract rules, such as those treating individual responsibility and several property, are associated with economics. Economics has from its origins been concerned with how an extended order of human interaction comes into existence through a process of variation, winnowing and sifting far surpassing our vision or our capacity to design. Adam Smith was the first to perceive that we have stumbled upon methods of ordering human economic cooperation that exceed the limits of our knowledge and perception. His `invisible hand' had perhaps better have been described as an invisible or unsurveyable pattern. We are led - for example by the pricing system in market exchange - to do things by circumstances of which we are largely unaware and which produce results that we do not intend. In our economic activities we do not know the needs which we satisfy nor the sources of the things which we get. Almost all of us serve people whom we do not know, and even of whose existence we are ignorant; and we in turn constantly live on the services of other people of whom we know nothing. All this is possible because we stand in a great framework of institutions and traditions - economic, legal, and moral - into which we fit ourselves by obeying certain rules of conduct that we never made, and which we have never understood in the sense in which we understand how the things that we manufacture function.

Modern economics explains how such an extended order can come into being, and how it itself constitutes an information-gathering process, able to call up, and to put to use, widely dispersed information that no central planning agency, let alone any individual, could know as a whole, possess or control. Man's knowledge, as Smith knew, is dispersed. As he wrote, `What is the species of domestic industry his capital can employ, and of which the produce is likely to be of the greatest value, every individual, it is evident, in his local situation, judges much better than any statesman or lawgiver can do for him' (1776/1976:11, 487). Or as an acute economic thinker of the nineteenth century put it, economic enterprise requires `minute knowledge of a

thousand particulars which will be learnt by nobody but him who has an interest in knowing them' (Bailey, 1840:3). Information-gathering institutions such as the market enable us to use such dispersed and unsurveyable knowledge to form super-individual patterns. After institutions and traditions based on such patterns evolved, it was no longer necessary for people to strive for agreement on a unitary purpose (as in the small band), for widely dispersed knowledge and skills could now readily be brought into play for diverse ends.

This development is readily apparent in biology as well as in economics. Even within biology in the strict sense `evolutionary change in general tends towards a maximum economy in the use of resources' and `evolution thus "blindly" follows the route of maximum resources use' (Howard, 1982:83). Further, a modern biologist has rightly observed that `ethics is the study of the way to allocate resources' (Hardin, 1980:3) - all of which points to the close interconnections among evolution, biology, and ethics.

The concept of order is difficult - like its near equivalents `system', `structure' and `pattern'. We need to distinguish two different but related conceptions of order. As a verb or noun, `order' may be used to describe *either* the results of a *mental* activity of arranging or classifying objects or events in various aspects according to our sense perception, as the scientific re-arrangement of the sensory world tells us to do (Hayek, *1952), or* as the particular *physical* arrangements that objects or events either are supposed to possess or which are attributed to them at a certain time. Regularity, derived from the Latin *regula* for rule, and order are of course simply the temporal and the spatial aspects of the same sort of relation between elements.

Bearing this distinction in mind, we may say that humans acquired the ability to bring about factually ordered arrangements serving their needs because they learned to order the sensory stimuli from their surroundings according to several different principles, rearrangements *superimposed over* the order or classification effected by their senses and instincts. Ordering in the sense of classifying objects and events is a way of actively rearranging them to produce desired results.

We learn to classify objects chiefly through language, with which we not merely label known kinds of objects but specify what *we are to regard* as objects or events of the same or different kinds. We also learn from custom, morality and law about effects expected from different kinds of action. For example, the values or prices formed by interaction in markets prove to be further superimposed means of classifying kinds of actions according to the significance they have for an order of which the individual is merely one element in a whole which he never made.

The extended order did not of course arise all at once; the process lasted longer and produced a greater variety of forms than its eventual development into a world-wide civilisation might suggest (taking perhaps hundreds of thousands of years rather than five or six thousand); and the market order is comparatively late. The various structures, traditions, institutions and other components of this order arose gradually as variations of habitual modes of conduct were selected. Such new rules would spread not because men understood that they were more effective, or could calculate that they would lead to expansion, but simply because they enabled those groups practising them to procreate more successfully and to include outsiders.

This evolution came about, then, through the spreading of new practices by a process of transmission of acquired habits analogous to, but also in important respects different from, biological evolution. I shall consider some of these analogies and differences below, but we might mention here that biological evolution would have been far too slow to alter or replace man's innate responses in the course of the ten or twenty thousand years during which civilisation has developed - not to speak of being too slow to have influenced the far greater numbers whose ancestors joined the process only a few hundred years ago. Yet so far as we know, all currently civilised groups appear to possess a similar capacity for acquiring civilisation by learning certain traditions. Thus it hardly seems possible that civilisation and culture are genetically determined and transmitted. They have to be learnt by all alike through tradition.

The earliest clear statement of such matters known to me was made by A. M. Carr-Saunders who wrote that `man and groups are naturally selected on account of the customs they practice just as they are selected on account of their mental and physical characters. Those groups practising the most advantageous customs will have an advantage in the constant struggle between adjacent groups over those that practise less advantageous customs' *(1922:223, 302)*. Carr-Saunders, however, stressed the capacity to restrict rather than to increase population. For more recent studies see Alland *(1967);* Farb *(1968:13);* Simpson, who described culture, as opposed to biology, as `the more powerful means of adaptation' (in B. Campbell, *1972);* Popper, who argued that `cultural evolution continues genetic evolution by other means' (Popper and Eccles, *1977:48);* and Durham (in Chagnon and Irons, *1979:19),* who emphasises the effect of particular customs and attributes in enhancing human reproduction.

This gradual replacement of innate responses by learnt rules

increasingly distinguished man from other animals, although the propensity to instinctive mass action remains one of several beastly characteristics that man has retained (Trotter, 1916). Even man's animal ancestors had already acquired certain `cultural' traditions before they became, anatomically, modern man. Such cultural traditions have also helped to shape some animal societies, as among birds and apes, and probably also among many other mammals (Bonner, 1980). Yet the decisive change from animal to man was due to such culturally-determined restraints on innate responses.

Whilst learnt rules, which the individual came to obey habitually and almost as unconsciously as inherited instincts, increasingly replaced the latter, we cannot precisely distinguish between these two determinants of conduct because they interact in complicated ways. Practices learnt as infants have become as much part of our personalities as what governed us already when we began to learn. Even some structural changes in the human body have occurred because they helped man to take fuller advantage of opportunities provided by cultural developments. Neither is it important for our present purposes how much of the abstract structure that we call mind is transmitted genetically and embodied in the physical structure of our central nervous system, or how far it serves only as a receptacle enabling us to absorb cultural tradition. The results of genetic and cultural transmission may both be called traditions. What is important is that the two often conflict in the ways mentioned.

Not even the near universality of some cultural attributes proves that they are genetically determined. There may exist just one way to satisfy certain requirements for forming an extended order - just as the development of wings is apparently the only way in which organisms can become able to fly (the wings of insects, birds and bats have quite different genetic origins). There may also be fundamentally only one way to develop a phonetic language, so that the existence of certain common attributes possessed by all languages also does not by itself show that they must be due to innate qualities.

Two Moralities in Cooperation and Conflict

Although cultural evolution, and the civilisation that it created, brought differentiation, individualisation, increasing wealth, and great expansion to mankind, its gradual advent has been far from smooth. We have not shed our heritage from the face-to-face troop, nor have these instincts either `adjusted' fully to our relatively new extended order or been rendered harmless by it.

Yet the lasting benefits of some instincts should not be overlooked,

including the particular endowment that enabled some other instinctual modes to be at least partly displaced. For example, by the time culture began to displace some innate modes of behaviour, genetic evolution had probably also already endowed human individuals with a great variety of characteristics which were better adjusted to the many different environmental niches into which men had penetrated than those of any non-domesticated animal - and this was probably so even before growing division of labour within groups provided new chances of survival for special types. Among the most important of these innate characteristics which helped to displace other instincts was a great capacity for learning from one's fellows, especially by imitation. The prolongation of infancy and adolescence, which contributed to this capacity, was probably the last decisive step determined by biological evolution.

Moreover, the structures of the extended order are made up not only of individuals but also of many, often overlapping, sub-orders within which old instinctual responses, such as solidarity and altruism, continue to retain some importance by assisting voluntary collaboration, even though they are incapable, by themselves, of creating a basis for the more extended order. Part of our present difficulty is that we must constantly adjust our lives, our thoughts and our emotions, in order to live simultaneously within different kinds of orders according to different rules. If we were to apply the unmodified, uncurbed, rules of the micro-cosmos (i.e., of the small band or troop, or of, say, our families) to the macro-cosmos (our wider civilisation), as our instincts and sentimental yearnings often make us wish to do, *we would destroy it*. Yet if we were always to apply the rules of the extended order to our more intimate groupings, *we would crush them. So* we must learn to live in two sorts of world at once. To apply the name `society' to both, or even to either, is hardly of any use, and can be most misleading (see chapter seven).

Yet despite the advantages attending our limited ability to live simultaneously within *two* orders of rules, and to distinguish between them, it is anything but easy to do either. Indeed, our instincts often threaten to topple the whole edifice. The topic of this book thus resembles, in a way, that of *Civilisation and Its Discontents (1930),* except that my conclusions differ greatly from Freud's. Indeed, the conflict between what men instinctively like and the learnt rules of conduct that enabled them to expand - a conflict fired by the discipline of `repressive or inhibitory moral traditions', as D. T. Campbell calls it - is perhaps the major theme of the history of civilisation. It seems that Columbus recognised at once that the life of the `savages' whom he encountered was more gratifying to innate human instincts. And as I shall argue

later, I believe that an atavistic longing after the life of the noble savage is the main source of the collectivist tradition.

Natural Man Unsuited to the Extended Order

One can hardly expect people either to like an extended order that runs counter to some of their strongest instincts, or readily to understand that it brings them the material comforts they also want. The order is even `unnatural' in the common meaning of not conforming to man's biological endowment. Much of the good that man does in the extended order is thus not due to his being naturally good; yet it is foolish to deprecate civilisation as artificial for this reason. It is artificial only in the sense in which most of our values, our language, our art and our very reason are artificial: they are not genetically embedded in our biological structures. In another sense, however, the extended order is perfectly natural: in the sense that it has itself, like similar biological phenomena, evolved naturally in the course of natural selection (see Appendix A).

Nonetheless it is true that the greater part of our daily lives, and the pursuit of most occupations, give little satisfaction to deep-seated `altruistic' desires to do visible good. Rather, accepted practices often require us to leave undone what our instincts impel us to do. It is not so much, as is often suggested, emotion and reason that conflict, but innate instincts and learnt rules. Yet, as we shall see, following these learnt rules generally does have the effect of providing a greater benefit to the community at large than most direct `altruistic' action that a particular individual might take.

One revealing mark of how poorly the ordering principle of the market is understood is the common notion that `cooperation is better than competition'. Cooperation, like solidarity, presupposes a large measure of agreement on ends as well as on methods employed in their pursuit. It makes sense in a small group whose members share particular habits, knowledge and beliefs about possibilities. It makes hardly any sense when the problem is to adapt to unknown circumstances; yet it is this adaptation to the unknown on which the coordination of efforts in the extended order rests. Competition is a procedure of discovery, a procedure involved in all evolution, that led man unwittingly to respond to novel situations; and through further competition, not through agreement, we gradually increase our efficiency.

To operate beneficially, competition requires that those involved observe rules rather than resort to physical force. Rules alone can unite an extended order. (Common ends can do so only during a temporary

emergency that creates a common danger for all. The `moral equivalent of war' offered to evoke solidarity is but a relapse into cruder principles of coordination.) Neither all ends pursued, nor all means used, are known or need to be known to anybody, in order for them to be taken account of within a spontaneous order. Such an order forms of itself. That rules become increasingly better adjusted to generate order happened not because men better understood their function, but because those groups prospered who happened to change them in a way that rendered them increasingly adaptive. This evolution was not linear, but resulted from continued trial and error, constant `experimentation' in arenas wherein different orders contended. Of course there was no intention to experiment - yet the changes in rules thrown forth by historical accident, analogous to genetic mutations, had something of the same effect.

The evolution of rules was far from unhindered, since the powers enforcing the rules generally resisted rather than assisted changes conflicting with traditional views about what was right or just. In turn, enforcement of newly learnt rules that had fought their way to acceptance sometimes blocked the next step of evolution, or restricted a further extension of the coordination of individual efforts. Coercive authority has rarely initiated such extensions of coordination, though it has from time to time spread a morality that had already gained acceptance within a ruling group.

All this confirms that the feelings that press against the restraints of civilisation are anachronistic, adapted to the size and conditions of groups in the distant past. Moreover, if civilisation has resulted from unwanted gradual changes in morality, then, reluctant as we may be to accept this, no universally valid system of ethics can ever be known to us.

It would however be wrong to conclude, strictly from such evolutionary premises, that whatever rules have evolved are always or necessarily conducive to the survival and increase of the populations following them. We need to show, with the help of economic analysis (see chapter five), how rules that emerge spontaneously tend to promote human survival. Recognising that rules generally tend to be selected, via competition, on the basis of their human survival-value certainly does not protect those rules from critical scrutiny. This is so, if for no other reason, because there has so often been coercive interference in the process of cultural evolution.

Yet an understanding of cultural evolution will indeed tend to shift the benefit of the doubt to established rules, and to place the burden of proof on those wishing to reform them. While it cannot prove the

superiority of market institutions, a historical and evolutionary survey of the emergence of capitalism (such as that presented in chapters two and three) helps to explain how such productive, albeit unpopular and unintended, traditions happened to emerge, and how deep is their significance for those immersed in the extended order. First, however, I want to remove from the path just outlined a major stumbling-block, in the form of a widely shared misconception of the nature of our capacity to adopt useful practices.

Mind Is Not a Guide but a Product of Cultural Evolution, and Is Based More on Imitation than on Insight or Reason

We have mentioned the capacity to learn by imitation as one of the prime benefits conferred during our long instinctual development. Indeed, perhaps the most important capacity with which the human individual is genetically endowed, beyond innate responses, is his ability to acquire skills by largely imitative learning. In view of this, it is important to avoid, right from the start, a notion that stems from what I call the `fatal conceit': the idea that the ability to acquire skills stems from reason. For it is the other way around: our reason is as much the result of an evolutionary selection process as is our morality. It stems however from a somewhat separate development, so that one should never suppose that our reason is in the higher critical position and that only those moral rules are valid that reason endorses.

I shall examine these matters in subsequent chapters, but a foretaste of my conclusions may be in place here. The title of the present chapter, `Between Instinct and Reason', is meant literally. I want to call attention to what does indeed lie *between* instinct and reason, and which on that account is often overlooked just because it is assumed that there is nothing between the two. That is, I am chiefly concerned with cultural and moral evolution, evolution of the extended order, which is, on the one hand (as we have just seen), beyond instinct and often opposed to it, and which is, on the other hand (as we shall see later), incapable of being created or designed by reason.

My views, some of which have been sketched earlier (1952/79, 1973, 1976, 1979), can be summarised simply. Learning how to behave is more the *source* than the *result* of insight, reason, and understanding. Man is not born wise, rational and good, but has to be taught to become so. It is not our intellect that created our morals; rather, human interactions governed by our morals make possible the growth of reason and those capabilities associated with it. Man became intelligent because there was *tradition* - that which lies between instinct and reason - for him to learn. This tradition, in turn, originated not from a

capacity rationally to interpret observed facts but from habits of responding. It told man primarily what he ought or ought not to do under certain conditions rather than what he must expect to happen.

Thus I confess that I always have to smile when books on evolution, even ones written by great scientists, end, as they often do, with exhortations which, while conceding that everything has hitherto developed by a process of spontaneous order, call on human reason - now that things have become so complex - to seize the reins and control future development. Such wishful thinking is encouraged by what I have elsewhere called the 'constructivist rationalism' (1973) that affects much scientific thinking, and which was made quite explicit in the title of a highly successful book by a well-known socialist anthropologist, *Man Makes Himself (V.* Gordon Childe, 1936), a title that was adopted by many socialists as a sort of watchword (Heilbroner, 1970:106). These assumptions include the unscientific, even animistic, notion that at some stage the rational human mind or soul entered the evolving human body and became a new, active guide of further cultural development (rather than, as actually happened, that this body gradually acquired the capacity to absorb exceedingly complex principles that enabled it to move more successfully in its own environment). This notion that cultural evolution entirely postdates biological or genetic evolution passes over the most important part of the evolutionary process, that in which reason itself was formed. The idea that reason, itself created in the course of evolution, should now be in a position to determine its own future evolution (not to mention any number of other things which it is also incapable of doing) is inherently contradictory, and can readily be refuted (see chapters five and six). It is less accurate to suppose that thinking man creates and controls his cultural evolution than it is to say that culture, and evolution, created his reason. In any case, the idea that at some point conscious design stepped in and displaced evolution substitutes a virtually supernatural postulate for scientific explanation. So far as scientific explanation is concerned, it was not what we know as mind that developed civilisation, let alone directed its evolution, but rather mind and civilisation which developed or evolved concurrently. What we call mind is not something that the individual is born with, as he is born with his brain, or something that the brain produces, but something that his genetic equipment (e.g., a brain of a certain size and structure) helps him to acquire, as he grows up, from his family and adult fellows by absorbing the results of a tradition that is not genetically transmitted. Mind in this sense consists less of testable knowledge about the world, less in interpretations of man's surroundings, more in the capacity to restrain instincts - a capacity which cannot be tested by individual reason since

its effects are on the group. Shaped by the environment in which individuals grow up, mind in turn conditions the preservation, development, richness, and variety of traditions on which individuals draw. By being transmitted largely through families, mind preserves a multiplicity of concurrent streams into which each newcomer to the community can delve. It may well be asked whether an individual who did not have the opportunity to tap such a cultural tradition could be said even to have a mind.

Just as instinct is older than custom and tradition, so then are the latter older than reason: custom and tradition stand *between* instinct and reason - logically, psychologically, temporally. They are due neither to what is sometimes called the unconscious, nor to intuition, nor to rational understanding. Though in a sense based on human experience in that they were shaped in the course of cultural evolution, they were not formed by drawing reasoned conclusions from certain facts or from an awareness that things behaved in a particular way. Though governed in our conduct by what we have learnt, we often do not know why we do what we do. Learnt moral rules, customs, progressively displaced innate responses, not because men recognised by reason that they were better but because they made possible the growth of an extended order exceeding anyone's vision, in which more effective collaboration enabled its members, however blindly, to maintain more people and to displace other groups.

The Mechanism of Cultural Evolution Is Not Darwinian

We are led by our argument to consider more closely the relationship between the theory of evolution and the development of culture. It is an issue that raises a number of interesting questions, to many of which economics provides an access that few other disciplines offer.

There has however been great confusion about the matter, some of which should be mentioned if only to warn the reader that we do not intend to repeat it here. Social Darwinism, in particular, proceeded from the assumption that any investigator into the evolution of human culture has to go to school with Darwin. This is mistaken. I have the greatest admiration for Charles Darwin as the first who succeeded in elaborating a consistent (if still incomplete) theory of evolution in any field. Yet his painstaking efforts to illustrate how the process of evolution operated in living organisms convinced the scientific community of what had long been a commonplace in the humanities - at least since Sir William Jones in 1787 recognised the striking resemblance of Latin and Greek to Sanskrit, and the descent of all 'Indo-Germanic' languages from the latter. This example reminds us

that the Darwinian or biological theory of evolution was neither the first nor the only such theory, and actually is wholly distinct, and differs somewhat from, other evolutionary accounts. The idea of biological evolution stems from the study of processes of cultural development which had been recognised earlier: processes that lead to the formulation of institutions like language (as in the work of Jones), law, morals, markets, and money.

> Thus perhaps the chief error of contemporary `sociobiology' is to suppose that language, morals, law, and such like, are transmitted by the `genetic' processes that molecular biology is now illuminating, rather than being the products of selective evolution transmitted by imitative learning. This idea is as wrong - although at the other end of the spectrum - as the notion that man consciously invented or designed institutions like morals, law, language or money, and thus can improve them at will, a notion that is a remnant of the superstition that evolutionary theory in biology had to combat: namely, that wherever we find order there must have been a personal orderer. Here again we find that an accurate account lies *between* instinct and reason.

Not only is the idea of evolution older in the humanities and social sciences than in the natural sciences, I would even be prepared to argue that Darwin got the basic ideas of evolution from economics. As we learn from his notebooks, Darwin was reading Adam Smith just when, in 1838, he was formulating his own theory (see Appendix A below).' In any case, Darwin's work was preceded by decades, indeed by a century, of research concerning the rise of highly complex spontaneous orders through a process of evolution. Even words like `genetic' and `genetics', which have today become technical expressions of biology, were by no means invented by biologists. The first person I know to have spoken of genetic development was the German philosopher and cultural historian Herder. We find the idea again in Wieland, and again in Humboldt. Thus modern biology has borrowed the concept of evolution from studies of culture of older lineage. If this is in a sense

See Howard E. Gruber, *Darwin on Man: A Psychological Study of Scientific Creativity, together with Darwin's Early and Unpublished Notebooks,* transcribed and annotated by Paul H. Barrett (New York: E. P. Dutton & Co., Inc., 1974), pp. 13, 57, 302, 305, 321, 360, 380. In 1838 Darwin read Smith's *Essays on Philosophical Subjects,* to which was prefixed Dugald Stewart's *An Account of the Life and Writings of the Author* (London: Cadell and Davies, 1795, pp. xxvi-xxvii). Of the latter, Darwin noted that he had read it and that it was `worth reading as giving abstract of Smith's views'. In 1839 Darwin read Smith's *The Theory of Moral Sentiments; or, An Essay Towards an Analysis of the Principles by which Men Naturally judge concerning the Conduct and Character, first of their Neighbours, and afterwards of themselves, to which is added, A Dissertation on the Origin of Languages,* 10th ed., 2 vols. (London: Cadell & Davies, 1804). There does not appear to be any evidence that Darwin read *The Wealth of Nations.* - Ed.

well known, it is also almost always forgotten.

Of course the theory of cultural evolution (sometimes also described as psycho-social, super-organic, or exosomatic evolution) and the theory of biological evolution are, although analogous in some important ways, hardly identical. Indeed, they often start from quite different assumptions. Cultural evolution is, as Julian Huxley justly stated, `a process differing radically from biological evolution, with its own laws and mechanisms and modalities, and not capable of explanation on purely biological grounds' (Huxley, 1947). Just to mention several important differences: although biological theory now excludes the inheritance of acquired characteristics, all cultural development rests on such inheritance - characteristics in the form of rules guiding the mutual relations among individuals which are not innate but learnt. To refer to terms now used in biological discussion, cultural evolution *simulates* Lamarckism (Popper, 1972). *Moreover,* cultural evolution is brought about through transmission of habits and information not merely from the individual's physical parents, but from an indefinite number of `ancestors'. The processes furthering the transmission and spreading of cultural properties by learning also, as already noted, make cultural evolution incomparably faster than biological evolution. Finally, cultural evolution operates largely through group selection; whether group selection also operates in biological evolution remains an open question - one on which my argument does not depend (Edelman, 1987; Ghiselin, 1969:57-9, 132-3; Hardy, 1965:153ff, 206; Mayr, 1970:114; Medawar, 1983:134-5; Ruse, 1982:190-5, 203-6, 235-6).

> It is wrong for Bonner (1980:10) to claim that culture is `as biological as any other function of an organism, for instance respiration or locomotion'. To label `biological' the formation of the tradition of language, morals, law, money, even of the mind, abuses language and misunderstands theory. Our genetic inheritance may determine what we are capable of learning but certainly not what tradition is there to learn. What is there to learn is not even the product of the human brain. What is not transmitted by genes is not a biological phenomenon.

Despite such differences, all evolution, cultural as well as biological, is a process of continuous adaptation to unforeseeable events, to contingent circumstances which could not have been forecast. This is another reason why evolutionary theory can never put us in the position of rationally predicting and controlling future evolution. All it can do is to show how complex structures carry within themselves a means of correction that leads to further evolutionary developments which are, however, in accordance with their very nature, themselves unavoidably unpredictable.

Having mentioned several differences between cultural and biological evolution, I should stress that in one important respect they are at one: neither biological nor cultural evolution knows anything like `laws of evolution' or `inevitable laws of historical development' in the sense of laws governing necessary stages or phases through which the products of evolution must pass, and enabling the prediction of future developments. Cultural evolution is determined neither genetically nor otherwise, and its results are diversity, not uniformity. Those philosophers like Marx and Auguste Comte who have contended that our studies can lead to laws of evolution enabling the prediction of inevitable future developments are mistaken. In the past, evolutionary approaches to ethics have been discredited chiefly because evolution was wrongly connected with such alleged `laws of evolution', whereas in fact the theory of evolution must emphatically repudiate such laws as impossible. As I have argued elsewhere (1952), complex phenomena are confined to what I call pattern prediction or predictions of the principle.

One of the main sources of this particular misunderstanding results from confusing two wholly different processes which biologists distinguish as *ontogenetic* and *phylogenetic*. Ontogenesis has to do with the predetermined development of individuals, something indeed set by inherent mechanisms built into the genom of the germ cell. By contrast, phylogeny - that with which evolution is concerned - deals with the evolutionary history of the species or type. While biologists have generally been protected against confusing these two by their training, students of affairs unfamiliar with biology often fall victim to their ignorance and are led to 'historicist' beliefs that imply that phylogenesis operates in the same way as does ontogenesis. These historicist notions were effectively refuted by Sir Karl Popper (1945, 1957).

Biological and cultural evolution share other features too. For example, they both rely on the same principle of selection: survival or reproductive advantage. Variation, adaptation and competition are essentially the same kind of process, however different their particular mechanisms, particularly those pertaining to propagation. Not only does all evolution rest on competition; continuing competition is necessary even to preserve existing achievements.

Although I wish the theory of evolution to be seen in its broad historical setting, the differences between biological and cultural evolution to be understood, and the contribution of the social sciences to our knowledge of evolution to be recognized, I do not wish to dispute that the working out of Darwin's theory of biological evolution, in all of its ramifications, is one of the great intellectual achievements of modern times - one that gives us a completely new view of our world. Its universality as a means

of explanation is also expressed in the new work of some distinguished physical scientists, which shows that the idea of evolution is in no way limited to organisms, but rather that it begins in a sense already with atoms, which have developed out of more elementary particles, and that we can thus explain molecules, the most primitive complex organisms, and even the complex modern world through various processes of evolution (see Appendix A).

No one who takes an evolutionary approach to the study of culture can, however, fail to be aware of the hostility often shown towards such approaches. Such hostility often stems from reactions to just those `social scientists' who in the nineteenth century needed Darwin to recognise what they ought to have learnt from their own predecessors, and who did a lasting disservice to the advance of the theory of cultural evolution, which they indeed brought into discredit.

Social Darwinism is wrong in many respects, but the intense dislike of it shown today is also partly due to its conflicting with the fatal conceit that man is able to shape the world around him according to his wishes. Although this too has nothing to do with evolutionary theory properly understood, constructivist students of human affairs often use the inappropriateness (and such plain mistakes) of Social Darwinism as a pretext for rejecting any evolutionary approach at all.

Bertrand Russell provides a good example in his claim that `if evolutionary ethics were sound, we ought to be entirely indifferent to what the course of evolution might be, since whatever it is is thereby proved to be best' (1910/1966:24). This objection, which A.G.N. Flew (1967:48) regards as `decisive', rests on a simple misunderstanding. I have no intention to commit what is often called the genetic or naturalistic fallacy. I do not claim that the results of group selection of traditions are necessarily `good' - any more than I claim that other things that have long survived in the course of evolution, such as cockroaches, have moral value.

I do claim that, whether we like it or not, without the particular traditions I have mentioned, the extended order of civilisation could not continue to exist (whereas, were cockroaches to disappear, the resulting ecological `disaster' would perhaps not wreak permanent havoc on mankind); and that if we discard these traditions, out of ill-considered notions (which may indeed genuinely commit the naturalistic fallacy) of what it is to be reasonable, we shall doom a large part of mankind to poverty and death. Only when these facts are fully faced do we have any business - or are we likely to have any competence - to consider what the right and good thing to do may be.

While facts alone can never determine what is right, ill-considered notions of what is reasonable, right and good may change the facts and

the circumstances in which we live; they may destroy, perhaps forever, not only developed individuals and buildings and art and cities (which we have long known to be vulnerable to the destructive powers of moralities and ideologies of various sorts), but also traditions, institutions, and interrelations without which such creations could hardly have come into being or ever be recreated.

TWO

THE ORIGINS OF LIBERTY, PROPERTY AND JUSTICE

> Nobody is at liberty to attack several property and to say that he values civilisation. The history of the two cannot be disentangled.
>
> Henry Sumner Maine

> Property ... is therefore inseparable from human economy in its social form.
>
> Carl Menger

> Men are qualified for civil liberties, in exact proportion to their disposition to put moral chains upon their appetites: in proportion as their love of justice is above their rapacity.
>
> Edmund Burke

Freedom and the Extended Order

If morals and tradition, rather than intelligence and calculating reason, lifted men above the savages, the distinctive foundations of modern civilisation were laid in antiquity in the region surrounding the Mediterranean Sea. There, possibilities of long-distance trade gave, to those communities whose individuals were allowed to make free use of their individual knowledge, an advantage over those in which common local knowledge or that of a ruler determined the activities of all. So far as we know, the Mediterranean region was the first to see the acceptance of a person's right to dispose over a recognised private domain, thus allowing individuals to develop a dense network of commercial relations among different communities. Such a network worked independently of the views and desires of local chiefs, for the movements of naval traders could hardly be centrally directed in those days. If we may accept the account of a highly respected authority (and one certainly not biased in favour of the market order), `the Graeco-Roman world was essentially and precisely one of private ownership, whether of a few acres or of the enormous domains of Roman senators and emperors, a world of private trade and manufacture' (Finley, 1973:29).

Such an order serving a multiplicity of private purposes could in fact