

The Multidimensionality of Social Evolution and the Historical Pathways of Asia and the West

Evolution concerns the process and direction of longterm change. Evolutionary theory developed by weaving back and forth between the social and biological sciences. With the triumph of Darwinian evolution and its synthesis with genetics, has come the opinion that a general theory of evolution explains both human and biological realms. The usefulness of biological evolution as a model for human social change, however, is questionable, in regard to both direction and process.

As to direction: Biological evolution has not led in a single direction but to a proliferation of multiple species pursuing their own paths. Earlier and more primitive branches of life forms have not been generally selected and replaced by more advanced forms, but have continued to exist alongside newer ones. Older forms have been supplemented by newer and more complex forms, not replaced by them. Viruses, bacteria and other microorganisms continue to exist and show every sign of continuing to do so for the longterm future. Primitive plants, such as fungi, ferns, and conifers, not only still exist but flourish. In contrast, human societies show a much stronger tendency for later and more complex forms to replace earlier and simpler forms. Compared to biological species, human societies more typically destroy each other, forcibly or economically incorporate each other, or become similar through diffusion and imitation. Human societies display plenty of variety especially if geographically separated. But in general human social history bears more resemblance to a series of stages than biological evolution does, because more powerful social forms impose themselves on others.

The idea of 'progress' in biological evolution would not unlikely have arisen were human societies not smuggled in as a reference point. It is dubious that any infrahuman species can be regarded as standing on a higher 'stage' than another; they are all equally well adapted, for some period of time or another, to their ecological niches in the array of other species. By the criterion of survival, it is not at all clear that mammals win out over plants, or that any of these win out over viruses. The same goes

for humans regarded as a biological species (rather than as a set of social forms); humans could easily select themselves out in a nuclear war or self-induced environmental crisis, leaving insects and microorganisms as the sole surviving species to repopulate the long-term future of the earth. My conclusion is that biology does not provide a model for the direction of long-term social change; if it did, there would be a proliferating variety of societies throughout history, not a tendency to narrow periodically through conquest, destruction, or imitation.

Second, as to process: the mechanism of natural selection is not a strong explanation. It leaves blank the mechanism which causes mutations upon which natural selection can operate. At the level of biological organisms, genetic mechanisms can be provided for the substrate on which mutation operates; but this still leaves the mechanism essentially one of random changes whose structural significance is given by selection forces which are particular to each historical set of ecological conditions. Applied to change in human societies, natural selection can be seen abstractly as covering anything that happens, but the concept is merely an umbrella under which specific causal theories drawn from elsewhere would have to be included. Natural selection makes the rather empty statement that those social forms which survive better than others are better adapted; i.e. those that survive best survive best. Historical and comparative sociology has not had to wait upon evolutionary theory to develop its own mechanisms for particular kinds of social changes. Evolutionary theory, for instance, would have been no use at all in the development of the contemporary theory of revolutions, which has moved from emphasis upon uprising from below to the mechanism of state fiscal breakdown. In retrospect, one might try to reinterpret either theory of revolution in evolutionary terms, but these terms would not have given any help in formulating the theory.

The main utility of evolutionary theory is heuristic. It points to a research topic, the long-term direction and mechanisms of social change. The comparison of the long-term histories of biological species and of human societies, as I have argued, suggests that for the latter we need to focus on specific mechanisms by which the variety of forms is periodically reduced, by such distinctively human processes as conquest, destruction, expansion of networks, travel, and emulation. Whereas biological species evolution is a history of ever-increasing proliferation of species into specialized niches, human social change might well be called, at least in part, recurrently niche-obliterating.

Was the West Really More Advanced than the East?

In historical sociology, recent research focusses on a new challenge. Since social evolution models began (predating biological evolution theories), with such theorists as Condorcet, Comte, Marx, Spencer, Durkheim, and Parsons, it has been taken for granted that the cutting edge of evolution (or synonymously, of progress or social advance) has been in the European West. The very idea of evolution as *progressive, directional change*, was transferred to the biological sphere from this ideology of European military/economic superiority. Max Weber, although opposed to evolutionary modes of analysis, also shared this view of a distinctive breakthrough to a more powerful society in the West, and launched the most sophisticated program of comparative investigations to show how this branching came about.

The challenge to this model today has been posed most sharply by Andre Gunder Frank (1998), building on comparative-historical scholarship by Braudel (1967-79), Abu-Lughod (1989), Chaudhuri (1990), Bairoch (1993) and others. Frank criticizes the common assumption that the long-term trajectory of the West was in advance of the major non-European civilizations. The standard story is that the West pulled ahead during the Renaissance and Reformation, in a wave of world exploration and conquest, the scientific revolution advancing knowledge and subjugating nature, and a capitalism of unstoppable dynamic expansion. These developments are sometimes ascribed to a uniquely Western spirit of innovation, rationality, or instrumental activism, which contrasts with the ethos of social fixity in Eastern societies.

The difficulty is this: empirical evidence indicates that the general economic level and the standard of living in the West, up through around 1800, were not higher than in the East, but generally lower (Bairoch 1993). That is to say, several hundred years of supposedly unique Western advances - scientific revolution, rationality, capitalist takeoff, world-system expansion - nevertheless did not give economic or cultural superiority. Eighteenth century Europeans regarded China as a land of superior wealth, splendor and culture; the philosophes satirized their own societies and agitated for reforms by contrasting their own societies with what they regarded as more rational and enlightened conditions of the orient. Expansion of the world-system, instead of constituting Wallerstein's expansion of Europe to encompass Asia and the rest of the world, might be regarded as a backward European periphery increasing its long-distance contact and information about the Chinese core. When Europeans appeared in Japan in the 1500s, they were regarded as Western barbarians, dirty and ill-

mannered. Western military technique, an improvement upon guns originating in China, was seized upon by Japanese war-lords and put to use. But European forces were not capable of conquering any of the well-organized Asian states at this time; even in the nineteenth century, European forces at best seized a few coastal ports in China. South and South-East Asia were more vulnerable, but even here the tide did not turn to full-scale European penetration until after 1800.

Abu-Lughod (1990) set the problem for an earlier period: a world-system existed in the 1200s and 1300s in the form of a chain of trade reaching from China through south Asia to the Muslim world; Europe was a periphery at the far Western end of the trade chain. Strengthening their connections with this chain gave Westerners an incentive to seek out the fabulous wealth of the East; but they took only a small part in the trade system because they had little to offer which the Eastern economies wanted. Gunder Frank generalizes the argument. World trade networks always existed, and China and India were the centers in these since ancient times, never Western Europe. The long steady advance of the West is an egocentric illusion, since the West was not more advanced than the East, until a very late period. The key question then must be to explain the fall of the East, rather than the rise of the West. The implication is that the sudden expansion of the West into global hegemony after 1800 could not have come about simply by Western evolution of advanced social forms, but was due to a crisis which made the previously more powerful Asian social organization vulnerable to Western attack.

Frank's theory focusses on the dialectical reversal or weakness of comparative advancement, the obverse of the advantage of comparative backwardness. (His argument principally concerns China, which he regards as the long-term center of the world economic system; parallel arguments about India and the Muslim heartlands of the Middle East are still to be worked out.) Chinese society by the time of the ancient Han dynasty (200 BCE - 200 CE) was already the largest and most complex in the world (although for a time paralleled by Rome); following further economic growth in the medieval period there appeared a full-scale market capitalism by the Sung dynasty (960-1260), and a high level of economic activity continued in subsequent dynasties. The large population of China in these later dynasties (115 million in 1200 AD, 160 million in 1600, 330 million in 1800, as compared to 58 million, 100 million, and 180 million in Europe at the same dates: McEvedy & Jones 1974) is an indication of its high level of prosperity. But here economic prosperity and structural efficiency constituted a trap to further economic development. Large population meant a abundance of labour, hence low wages. Economic enterprises were

carried out by massed labour for large-scale projects, and by labour-intensive forms of production for refined products. There was no demand for labour-saving devices. Many scientific and mechanical advances were made in China, from the Han dynasty onwards (Needham 1954-present), because many favorable conditions existed for intellectual activity including a highly educated class, material support for specialists, and widespread dissemination of texts. But all this intellectual capacity and mechanical innovativeness was not harnessed to economic entrepreneurship: not because of lack of economic and cultural rationality, but because the economic situation made it rational to make use of cheap labour rather than to replace labour with machinery.

Conversely, Frank argues, the West had the advantage of comparative backwardness. Europe had a thin population relative to the productive land available, especially on the north European frontiers and all the more so when these civilizations expanded into North America. A small population relative to economic opportunities resulted in high wages, and thus in an incentive to develop labour-saving machinery. Thus the fall of the East and the rise of the West are ultimately demographically-driven. Frank does not differentiate between East and West in terms of their capitalist market institutions; evidence of long-distance trade since ancient times, and of specialized production for these markets, often in high-volume forms of productive organization, indicate that capitalism, in its most general form, is a constant, as far as Frank is concerned. Thus the rise of capitalism is not a variable which explains the rise of the West and its ascendancy over the East; instead, a common economic rationality within both Eastern and Western capitalism underlies the specific economic strategies of both parts of the world. Demographic and ecological conditions within world capitalism, not between Western capitalism and Eastern non-capitalism, eventually gave rise to the divergence between the labour-saving industrial revolution in the West, and the labour-intensive capitalism of the East.

Frank denies that the issue should be formulated in terms of the rise of capitalism at all. His critique applies also to Wallerstein's (1974-1989) world-system theory. According to the latter, the crucial differentiating factor was geopolitical: the East consisted of empires, which allowed no room for capitalism; whereas Europe developed multi-state rivalries, which allowed capitalists to flourish in the interstices between the states, playing off rulers against each other in the quest for financial resources, in return for autonomous rights to pursue economic gain. Wallerstein thus attributes the origins of Western capitalism to a world-system of shifting hegemonic centers within a multi-state system. The weakness of this argument, Frank asserts, is empirical: the structure of the capitalist world-system was in

place by the 1500s; but China, Japan and India continued to operate market economies at a higher level than Europe until about 1800.

According to this line of argument, the West benefitted from the advantages of its comparative backwardness in two respects. The first, we have seen, was demographic: the incentive of a small population upon rich territories for developing labour-saving machinery. The second is a geographical accident. Europe was blocked by stronger military powers in the East from expanding in that direction (bear in mind that the Ottoman empire was advancing Westwards, reaching almost to Vienna in the late 1600s. This point is also argued in Burke 1997). Thus European powers expanded into relatively empty territories, developing sea power because land expansion was less favorable, and pushing into the Western hemisphere, where for the most part small and weakly organized tribal populations put up little resistance.

The advantage of the far Western European periphery of the Eurasian trading zone was that it could expand into external areas of the world-system, where population and state organization had not been built up, in the absence of diffusion of agricultural and other techniques for the core. This in itself is a geographical accident, or perhaps we can say, a geographical dimension of world-system structure, insofar as proximity to the core determines the relative speed with which advanced techniques are adopted.

The key geographical accident, in Frank's account, is that the weakly defended lands of the Americas turned out to be rich in gold and silver. This finally gave Europeans an economic resource for which there was a demand on the world market. The fact that American gold flowed Eastwards through Europe and ended up in Asia is evidence of European economic backwardness in other respects; where China and India had factories producing goods for export, including to the West, the West had no manufactured goods that Asia wanted, but could provide only raw materials in the form of precious metals. Thus the drawing of Europe into the Asian-centered world market economy was not an intrusion of the advanced into the less advanced, but the drawing in of a semi-periphery exporting raw materials to the manufacturing core.

Europe eventually caught up with and surpassed the East, then, because (1) a less advanced economy, less capable of supporting a big population, had to invent labour-saving machinery; (2) these militarily weaker European states had a favorable geographical accident, that sparsely populated territory accessible to them by sea contained a key natural resource they could use to buy into the world market; (3) European military forces by the 18th and 19th centuries were able to take advantage of temporary

weaknesses or splits among states in India, and of cyclical dynastic troubles in China, to force their way into control of some of the rich core manufacturing areas of the older world-economy. Thus Thompson (1999) presents evidence that European military dominance during its overseas territorial expansion was established by taking advantage of the accidents of local geopolitical rivalries.

The first of these arguments is surely incomplete; after all, scarcity of labour does not always lead to labour-saving machinery, and social conditions must be favorable to development and institutionalization of market-oriented inventions.

The third argument sounds like special pleading. It resonates with the post-colonial ideology of West-bashing and Western self-abnegation popular among late 20th century intellectuals. In effect, it says that Europe did not get ahead of the East 'fair and square' by its economic and cultural superiority, but by accident, and by nefarious and coercive means. But this is not a theoretically consistent model. Coercion has been part of the pathway by which some societies have imposed their control upon others throughout most of history; hence coercive success is just as much a main line of social change as is economic growth. What Frank and other critics seem to be trying to argue is that our traditional picture of the West rising to a superior form of social organization, and then using that organization to dominate the rest of the world, is too simple. The West did not simply have more innovation, which it then applied to expanding economically and militarily, and which innovations were eventually copied by 'undeveloped societies'.

Frank and other critics of Western superiority share with the traditional accounts they are criticizing the underlying assumption is that there is a single dimension of 'advance'; that societies which are advanced economically are also advanced militarily, and indeed that culture, technology, economy, polity all are part of the same *Gestalt*. Hence, according to our traditional 'myth of Western superiority', the same changes which brought capitalism and the modern state also brought more effective armies, so that Western powers took over the world by cultural attraction, economic penetration, and military victory alike. Frank maintains the notion of general superiority but reverses the polarity. Frank, as an economic determinist, argues that the world-trading system has been capitalist for millenia; that China was the economically advanced core of this system; that the Western periphery only got into this trading system through geographically available resources that did not really make up for their economic backwardness, and through rather ad hoc, accidental features which enabled them to win military victories. Ultimately, he seems to be saying, all this early Europe-

an penetration into the world market system would have come to nothing, except that the Eastern economic core stagnated on its cheap labour, while the labour-poor West eventually substituted enough machine-power to finally - after 1800 - capture the core position for themselves.

With poetic justice, Western hegemony was no sooner established than it began to fall apart, with the dismemberment of the colonial empires in the mid-20th century, and a vigorous new round of East Asian capitalism which Frank believes will recapture its traditional core position in the world economy. Western dominance is thus a blip on the historical screen, covering little more than the late 19th century and the first two-thirds or so of the 20th century. The latter part of this argument is undertheorized. It plays on the ironies of what appears to be a relatively short Western dominance, but it offers no systematic reasons why Western empires should have collapsed after the World Wars, and it extrapolates from short-term trajectories of late 20th century economic growth to assuming that somehow an East Asian core will reassert itself as if out of sheer long-term historical inertia. The argument is in fact quite particularistic, and laden with ideological overtones, a kind of gloating over the apparent failures of Western egocentrism.

The puzzle can be reformulated once we see that there is no single dimension of social advance. If by 'advance' we mean that some social forms are more powerful than others, that they displace others by dominating, absorbing, or providing an irresistible model for them, then we should recognize that there are multiple dimensions of social advance. Frank, Abu-Lughod and others rest their critique of Western modernity/innovativeness upon the central dimension of economic market production; the key facts that they cite are the existence of an Asian-centered world market network into which Europe was a late-comer; and the higher level of productivity of Asian economies until about 1800. Given this economic centrality, anything else that happened in Europe before 1800, including military, political, religious and other cultural changes, is epiphenomenal, since it did not manifest itself in economic parity with Asia. The argument becomes inconsistent because Frank et al. admit that some non-economic factors figured as accidental sources of Western intrusiveness upon the Asian core. Perhaps the best that can be said for this point of view is that if these are accidental, their effects would be soon reversed by other accidental factors of the same kind; thus if geopolitics gave theoretically trivial but historically fateful advantages for Western armies in 18th century India and 19th century China, other geopolitical accidents in the 20th century destroyed the colonial empires and opened the way for Asian societies to reassert their ancient economic primacy. It is more satisfying

as a comprehensive theory, however, to recognize that military and other factors can also be understood as following general principles, and that they are spheres of causality in their own right.

Multiple Dimensions of Social Power or 'Advance'

Once we move to a multi-dimensional view of what Mann (1986) calls the 'sources of social power', then the question of the relative advance of Eastern and Western societies admits of more complicated answers. (Indeed these become more complicated still if we take apart these terrible simplifications of 'East' and 'West' into multiple regions with distinctive social institutions.) China and other Asian societies could be more powerful or advanced on some dimensions at some times but not on others. I will elaborate the familiar Weberian three dimensions, economic, political, and cultural, breaking each into a number of subdimensions.

[1] Economic:

- a. quantitative level of production and accumulated wealth.
- b. capitalist structure, especially the degree of dynamism in generating a continuous stream of economic innovations.

We need a theoretical explanation for each subdimension. The explanation of [1a], the level of wealth, is not necessarily provided by a theory of [1b], capitalist structure; for instance, Frank argues that we need not invoke differences in Eastern and Western capitalist structure to account for China's greater wealth before 1800; conditions of geography or of the world market might account for [1a], over and above [1b].

[2] political:

- a. the military power of the state; conditions are given by geopolitical theory.

b. political structures. Here there are yet further subdimensions:

- b1. degree of political centralization, tax extraction capacity, and state penetration into regulating society.
- b2. 'degree of democracy'.

The crude evolutionary progress model tends to assume that everything goes together. Thus Westerners have been taught to take pride in having [1a] the richest economy, [1b] the most dynamic economic institutions, [2a] the most military power, [2b1] the most modern centralized state, [2b2] the most democracy and human rights, as well as [3] the most advanced culture in its various aspects. Analytically, however, there are different causal theories for each of these. In political sociology, the most refined and empirically best-supported theories concern [2b1], how the

military revolution of the European 1500s and 1600s led to the development of a centralized revenue extraction apparatus and to increasing state penetration into society (Tilly 1990; Mann 1993).

Democracy calls for special comment. I have enclosed it in 'quotes' above in order to indicate there is some question as to whether this should be considered an 'advance' in social power. Some analysts (Hobson 1997) believe it makes a state more powerful since modern democracies have been better able to raise taxes for military might; on the other hand, ancient Athenian democracy was defeated by more authoritarian states, and the volatile politics of late medieval Italian city-states made them vulnerable rather than powerful. We might also invoke a different standard of 'advance', that which is an irresistible model for imitation. In some historical instances, such as the 20th century (when the world's richest and militarily most powerful states were democracies), democracy has been a prestigious model; but it is not clear that this is generally the case across all historical periods.

We have as yet rather weak theories of the determinants of democracy, in part because it is not yet widely recognized that democratic structures are themselves composites of further subdimensions, notably collegial power-sharing institutions, and on the other hand widening of the participatory franchise or citizenship (Collins 1999a). The military revolution of mass centrally-supplied armies gave some impetus towards citizenship, and the centralized state provided still further movement towards expanding citizenship franchise; but the sharing of power within a collegial group, and thereby the limitation on arbitrary central authority, runs somewhat contrary to these trends. Democracy as a composite comes from a combination of conditions, some of which are found in medieval structures preceding and even opposing the centralized state. There is no simple route towards democracy; nor does it seem to be a universal stage, but only an historically contingent development which happens to have achieved high prestige in the world because of its association with the ascendancy of European states.

[3] Culture.

It is harder to judge the level of 'evolutionary advance' in culture, since many cultural products throughout world history have a high degree of impressiveness. But claims have been made for some cultural subdimensions:

a. Religion: some religions are described as more advanced because they are more universalistic (i.e. monotheistic, purged of particular local social identities), more humane in their ethics, more 'rational' (purged of magical beliefs) (Bellah 1964).

b. Secularization: on the other hand, theories of the Durkheimian type argue that a secular society is more advanced because it has passed beyond religious beliefs entirely.

c. Art and literature: here it takes a good deal of chauvinism to claim that one's own artistic heritage is more advanced than that of other world regions. Nevertheless, there are some sociological ways to construct such an argument. Weber (1911/1958) argued that Western music after the Renaissance becomes distinctive because it rationalized musical tones into a tempered scale which allowed transposition among keys, and created a set of notational conventions for representing rhythms, so that traditional and non-Western virtuoso musicians could be replaced by coordinated orchestral harmony. Others have noted the transformations of Western art that came about with shifts from church and aristocratic patronage to markets for art products, thereby promoting 'modernist' tendencies towards abstraction and experimentation (White & White 1993; Watt 1957). Such self-consciously 'avant-garde' movements appeared in European painting, music, and literature around the turn of the 20th century, deliberately breaking with traditions of visual representation, musical harmony, and elevated poetic language and easy narrative meaning. Yet some of these social conditions which changed artistic production in modern Europe also existed in Asia; for instance in China mass markets for novels gave rise to naturalism, and the market for wood-block prints in Tokugawa Japan produced some of the stylized 'modernist' trends admired by European painters of the impressionist era.

It is an open question for further exploration, as to what extent specific 'rationalized' or 'modernist' techniques, grounded in social transformations in Europe and Asia, generated exportable high-culture products, which are consumed and emulated elsewhere in the world. European orchestral music has achieved high prestige in 20th century East Asia, and modernist literary techniques have spread in various places. On a more vulgar level of mass consumption entertainment, the combination of techniques which make up 'Hollywood' style films have been highly effective in the world market. If we define 'advanced' as those techniques which have 'social power' of attracting widespread audiences and displacing older entertainment techniques, it is possible to investigate to what extent 'advanced' or 'hegemonic' culture has been produced in one part of the world or another at particular times, and by what social causes.

d. Scholarship and philosophy. Knowledge does accumulate over time to the extent that there are institutions supporting intellectual specialists. We can affirm, for instance, that knowledge of history accumulated more extensively in some regions of the world than others (e.g. since the ancient

dynasties, Chinese historical scholarship has accumulated, whereas in India there was much less structural support for keeping official chronologies). In this realm, European scholarship has been supported by several institutional bases, notably the medieval universities, and again after 1800, the research-oriented university which became dominant in Germany and was emulated elsewhere in Europe (Collins 1998, chapter 12). Furthermore, intellectual communities with stably institutionalized material bases can accumulate textual knowledge over the generations, which scholars analyze with increasing degrees of abstraction and reflexivity. A scholarly community, given the material support and autonomy to pursue its own internal debates, tends to build up increasingly general interpretative models, to question prior assumptions, and build up increasing self-consciousness about its methods, epistemology, and nature of its symbol system.

This sequence of abstraction and reflexivity, as I have called it (Collins 1998) is visible at many periods in the West, beginning in ancient Greece, and again in the medieval Christian universities, and continuing through into the contemporary period. However, we cannot conclude that there is a unique Western rationalism, a 'Faustian' culture in Spengler's term, aiming at boundless knowledge. For there are long histories of scholarship and philosophy in India, China, Japan, and the Islamic world, all of which at various times have raised their own levels of abstraction and reflexivity. Japanese scholarship in the 17th and 18th centuries bears a particularly strong relationship to Western European philosophy, economics, and other disciplines.

My conclusion is that it is possible to array scholarship and philosophy along a continuum (or several continua) of advance, insofar as more abstractly generalized and reflexively self-examining fields of knowledge tend to impose themselves as objects of emulation by intellectual communities whose knowledge is more particularistic and uncritical. But given this yardstick, it does not follow that the West has been uniquely innovative and sophisticated. This is a matter for investigation; as a crude generalization, I would say that all of the major civilizations have made advances along the continuum of abstraction and reflexivity for long periods of their histories. Those societies which were quickest to adopt the German research university developed advantages in scholarly production in recent times, and leading Western universities in the 20th century have been magnets for scholars throughout the world. Here at least my argument is parallel to Gunder Frank's: such Western intellectual hegemony is a relatively recent development, not because innovative intellectual institutions have not had a long history in the West, but because they have had very long histories elsewhere as well.

e. Science. Empirical research about the natural world as well as mathematics has gone on in all civilizations; what is distinctive about European science since around 1600 has been that relatively high consensus has been achieved on particular scientific paradigms (in contrast to dissension among rival models which is characteristic of most empirical science, both in the West prior to this date, and in the rest of the world). Another distinctive feature is that European science became what I call 'rapid-discovery' science, having linked intellectual arguments to a stream of innovations in research equipment which has resulted in a method for discovery-making (Collins 1998, chapter 10). Western science does take on a unique dynamism after this point, which differentiates it from the empirical and mathematical sciences of the rest of the world, which remained slow-moving and non-consensual. And since laboratory equipment could often be modified for applied purposes and shipped out of the laboratory (e.g. electrical devices), rapid-discovery science eventually flowed into the capitalist economy and has given it an additional source of dynamism. Rapid-discovery science did not derive from European capitalism, but by the 19th century scientific lab technology increasingly fed capitalist production; and it has been this hybrid laboratory capitalism which has proved so powerful in penetrating the world economy.

My argument is not for the autonomy of science from all social conditions; science is socially constructed (Latour 1987; Knorr Cetina 1999). But rapid-discovery science, constructed out of the social conditions of European intellectual life in the 1600s and subsequent centuries, has been a form of social power, at least within intellectual communities; the leading edge of scientific discovery (which goes along with the edge of laboratory technology) is a set of social institutions which impose themselves both by their impressiveness and their economic utility. This is one arena of culture in which Western advance over the rest of the world can be documented from the 1600s onward.

Summing up: Can we rest, then, with an inventory of different subdimensions of economy, politics, and culture, totalling perhaps 9 or 10, and leave it as an empirical matter as to where and when there has been an 'evolutionary' advance, or a demonstrable superiority in social power, for one part of the world in relation to another? Some of these dimensions may be causally dependent, at least in part, upon some other dimensions (i.e. they receive causal inputs from other dimensions, even if there is a complex multicausality operating in each). Even so, I would argue, it is impossible to go back to subsuming all of these dimensions under a single master trend. They are not all instances of Weber's 'Western rationalism' or Parsons' 'instrumental activism', or the Faustian innovative culture

which Goldstone (1991) seems to endorse. Empirically, advance or social power along one dimension does not necessarily go with advance along another dimension; most notably, capitalism, geopolitical power, state penetration, and democracy do not generally correlate historically. The obsession with subsuming all these areas under a single label diverts us from looking for the actual causal mechanisms, which must be sought by investigation of each sphere.

One Key Structural Transformation: From Patrimonial Household to Bureaucracy

There is a way to simplify our overview of world social changes. One key change in organizational forms, delineated by Max Weber, is implicated in many if not all of the dimensions of change listed above. This is the change from patrimonial households to bureaucracies.

The patrimonial household was not the family per se. It was, rather, a mode of organizing virtually all social activities around households. These were places where a family lived and held property, but surrounded by servants, guards, slaves, hostages, friends, clients and others. The more such ancillary, nonfamily personnel attached to a family household, the greater its ability to carry out economic, military, political, and cultural enterprises. A large fortified household housing many troops was a military force; a household with many servants, labourers, apprentices, journeymen etc. could be a *manufacturing, agricultural or trading enterprise*. The larger macro-structure of societies based upon patrimonial households consisted of interhousehold alliances; politically, this might take such forms as feudalism, patronage, or loose alliance; there were also mixed patrimonial/bureaucratic states in which officials were appointed by the ruling household but were allowed to carry out local administration through their own autonomous household staffs - a form of administration which ran the danger that the subordinate households might acquire ambitions of independence. Long-distance economic networks were elaborated by links of personal connection among merchant houses or banks.

In important respects, the crucial changes of social history occurred as patrimonial/household forms were replaced by relatively more bureaucratic forms of organization. We may trace these in each sphere. Politically, the modern state emerged as an organization independent of family connections, substituting the authority of general written laws and regulations for personal loyalty to the lineage chief or family group. Rules and record-keeping made it possible to formulate an abstract organization made up of

positions, separated from the individuals who temporarily fill them. In the West, the bureaucratic state was initiated largely through the military revolution, the replacement of patrimonial warriors and their particularistic loyalties, by troops of full-time professional soldiers armed by and under the pay of the state. The efforts to finance such troops and their weapons led to increasingly bureaucratic forms of tax extraction, and the bureaucratic state apparatus thus constructed came to be used for many purposes which penetrated society (Mann 1993). The modern state, as it emerged in the 19th and 20th century, inscribes every individual under its jurisdiction into its rolls as a citizen, subject to laws regarding education, health, tax liabilities, and military service, and also given general rights upheld by government agencies and courts. The bureaucratic state emancipates the individual from control of the household, by making him or her directly subject to the impersonal powers of the state. State penetration by bureaucracy is thus one of the conditions for mass democratization (although not on every dimension, since the structure of collegially shared power cuts across the degree of bureaucratization). The bureaucratic centralized state also shapes the form of modern political life; as Tilly (1995) and Mann (1993) show, large-scale social movements going beyond local protests only came into existence when individuals became emancipated from local ties and mobilized in the face of a centralized state which could be a target for concerted political action.

The modern capitalist economy also rests to a considerable degree upon bureaucratic forms. Although earlier enterprises could be organized in patrimonial households, the separation of the home from the work place made it possible to organize much larger enterprises, and to recruit a workforce in a more flexible manner; bureaucratic forms of control by rules and record-keeping allowed greater standardization of production, interchangeability of parts, and mass production generally. Weber also argued that a bureaucratic organization of regulatory institutions, notably bureaucratically administered law, provided an environment in which mass production economy and entrepreneurial investment acquired necessary safeguards from crime and political confiscations. The development of formal law is another aspect of regulation by impersonal bureaucratic organization rather than patrimonial connections. Thus the bureaucratization of the state also fostered large-scale capitalism.

Patrimonial household and bureaucratic organization also affected religion and culture. In the patrimonial household, religion generally was enacted by household ceremonies, sometimes (as in Confucianism or Brahminism) carried out by the family head; in medieval Christianity, typically in a manor church in which the aristocratic household heads and

their families were surrounded by their servants in order of rank. As Wuthnow (1989) noted, religious ceremonial enforced household discipline and social rank; conversely religion was closely tied to the concerns of dominant classes. The state-enforced or Established church was the church of the ruler's household, enforced as a mode of negotiated alliance or imposed among subordinate households. (E.g. the Chinese imperial cult was amalgamated with household Confucian ceremonies, and both were regarded as reinforcing each other.) The breaking up of the patrimonial household had the effect of making religious participation more of a private activity for individuals, a shift from external social forms to inner conscience or experience; it also made churches more entrepreneurial, as special-purpose organizations which could be founded wherever enough financial contributions could be regularly acquired from a congregation. The shift from patrimonial/household to bureaucratic churches, in this sense, allowed more freedom for religious movements, which could proselytize widely, promote moral crusades and social reforms. Special purpose religious organization thus contributed to the dynamism (and the degree of political mobilization and conflict) within a society; at the same time, such religious organizations had a less permanent source of appeal, or means of intrusion, in people's lives; participation was more intentional and voluntary, less a matter of household routine. The shift both increased the level of religious fervour, on occasions of strong mobilization, but also made it possible to treat religion as a purely private matter. It is the latter which constitutes the atmosphere of secularization, the withdrawing of religion from the compulsory or public aspects of life, into special purpose organizations which people can take or leave, as individuals, as they see fit.

The shift from patrimonial households to bureaucratic organization thus is involved in several key changes: it is at the core of the modern state and citizenship, and the development of formal law; it is central to widespread mass-production capitalism; and it shapes the modern cultural sphere by making culture-producing organizations, both religious and entertainment, into specialized voluntary spheres and thus part of secularized and private rather than compulsorily collective experience.

If we use the patrimonial/bureaucratic shift as a benchmark of advance in social power, we must bear in mind several caveats. The transition occurs along a continuum, and may happen in one limited sphere of society while traditional forms are maintained elsewhere. And the patrimonial/bureaucratic shift does not explain all of the dimensions of social power. There are other aspects to capitalist dynamism (described for instance in Collins 1997); in the political sphere, geopolitical power is determined by its own set of principles (Collins 1999). A state which undergoes the mili-

tary revolution by bureaucratizing their military may increase its power vis-a-vis states based on patrimonial military organization, but not inevitably so, since other GP principles (geopositional advantages, sheer level of population and economic resources, logistical overextension problems) also operate. We cannot simply read off GP power from the degree of bureaucratization of the military, but only in relation to the full range of GP conditions. And as noted, the structures of collegial power-sharing (republican and similar institutions) antedate the bureaucratic state and are to some extent antithetical to it. And culture 'advance' or social impressiveness, as we have seen, has a number of causes distinctive to the sphere of cultural production, which are tied only in part to the patrimonial/bureaucratic shift in the surrounding society.

Patrimonialism and Bureaucracy in India, China, Japan and Europe

In what follows, I will make a short summary of changes along the patrimonial/bureaucratic continuum in India, China, Japan, and North Western Europe. I omit consideration here of the Ottoman empire, the Islamic world generally, and Eastern Europe in the interests of space.

Perhaps the earliest break from patrimonial/household organization came with religious organization of orders of monks (sources on what follows are found in Collins 1998). Practicing celibacy and renouncing world property meant that the individual monk had no ties except to the monastery. In India, the Buddhist and Jainas formed organizations with collective discipline under their own codes of conduct. As such religious organizations grew and acquired material property, their administrative structure took on an increasingly elaborate bureaucratic form. In India, however, the celibate monastic orders were rivalled by religious organization around the Brahmins, who emphasized ritualism and purity rules as household heads. Brahman priests managed to gain control of the status system, marriage practices, and property law; their ascendancy limited the power of states to collect revenue, blocking the political route towards bureaucratic centralization. Indian states remained largely patrimonial. In the medieval period Buddhist monasticism was expelled from India, although some equivalent Hindu monastic movements filled the gap; and popular Hindu devotional cults constituted entrepreneurial churches.

As yet we have no clear assessment of Indian social history from the point of view of how much these quasi/bureaucratic, trans-household forms of organization contributed to capitalist markets and cultural competition. That some of them were implicated in economic growth can be inferred

from the fact that in areas where Jaina monks were supported, merchant enterprise tended to flourish, especially in coastal regions which took part in the world trading system. On the whole, India appears to have been limited by patrimonial/household structures built around Brahmanical religion and its caste system. But scholars are turning up increasing evidence of Indian wealth and productivity of large-scale economic enterprise in the period before the European conquest; a key task for the future is to analyze their organizational underpinnings.

China pioneered the other main route towards bureaucratic organization, the centralized state staffed by officials keeping records and administering laws. The Chinese state wavered historically along the patrimonial/bureaucratic continuum. The first bureaucratized states of the late Warring States period (350-220 BCE) and the unifying Han combined administration by officials with ruling families and hereditary aristocracy. Schools and competitive examination for choosing officials on impersonal criteria were gradually developed, reaching their greatest importance in the Sung, Ming, and Ch'ing dynasties. With the expansion of Buddhism in medieval China, the two main sources of challenge to the patrimonial household were both present. Elsewhere I have argued how Buddhist monasteries acted as rationalized economic entrepreneurs, promoting large-scale market capitalism (Collins 1986, chapter 3); episodes of religious persecution and confiscation of monastic property eventually turned religious wealth into secular channels, much as the Protestant Reformation did with the suppression of monasteries in Europe. As a consequence of both state bureaucracy and monastic organization, China by the time of the Sung dynasty had developed many features of modernity, including a vigorous capitalist dynamic, financial markets and inflation, and political movements contesting control of state offices and policies. In this perspective, there was no need for a 'European miracle' to generate modernity; if Europe had never existed, a good deal of the economic, political, and cultural changes that we associate with modernity nevertheless were already operative in China.

At the same time, a good deal of patrimonial/household structure was strongly institutionalized in China. The Confucian legal system, which also enforced ritual authority both within the family and in the state, used patrimonial relationships as building-blocks of social order. A thin layer of bureaucratically chosen officials administered a huge society which was largely organized as patrimonial households; the influence of these family connections into the bureaucracy created a problem of 'corruption' and limited the reach of official policies. Overall assessment must remain tentative. A widespread market economy existed in the later dynasties, although some have argued that it stagnated in a 'high level equilibrium

trap' (Elvin 1973) without full entrepreneurial dynamism. On the political side, the patrimonial/bureaucratic mix limited the possibility of widespread mobilization of political movements, like those which were important at times during the Sung, blocking the pathway towards further citizenship participation. At the same time, there was a good deal of state penetration and regulation of society, with Confucianism inside the household operating as the fingers on the long arm of the state. On the cultural side, there were flourishing markets for books, works of art, popular entertainment, and privatized religious experience, which gave late dynastic China a quality rather like the secularized cultural marketplace of modern Europe. China thus displays many elements of modernity in all spheres, although combined with strong mixtures of patrimonialism.

Japanese society was originally organized around clans, and these retained some importance down to recent centuries. At various times attempts were made to import Chinese-style centralized government bureaucracy, although these controls were often broken by feudal decentralization; the patrimonial households of the feudal lords fostered the ethos of personal loyalty of samurai warriors to their house, an ethos which eventually became emulated throughout Japanese society as polite manners and the model of social relationships (Ikegami 1995). During the long period of feudal decentralization (ca. 1180-1580), Buddhist monastic organization, originally imported from China, became the wealthiest and militarily most powerful organizations. Within the Buddhist enclave, bureaucratic forms, legal regulation, property transfer and economic enterprise developed. This Buddhist sphere of action by voluntarily-recruited special-purpose organization outside the sphere of patrimonial households spread into the population: in part by Buddhist reforms which allowed priests to marry and live outside the monastery, thus forming a 'Protestant' style of Buddhist organization; in part by the evangelical proselytizing of the Pure Land movements, which spread among lay people, shaping an ethos of religious self-discipline and motivation. These lay religious movements also formed networks of economic contributions supporting the church hierarchy, spreading market relations into the countryside and promoting the growth of towns. Religious organization also served to create popular political federations, some of which were successful in maintaining a kind of democratic independence from the feudal lords. Japan in the 1500s looks a good deal like the most dynamic commercial city-states of contemporary Europe (Collins 1997).

The reestablishment of quasi-centralized government in the Tokugawa era (1600-1860) crushed the Buddhist organizations, confiscated monastic property and destroyed the Pure Land political federations. The result was

not simply a return to patrimonial/household aristocratic domination but also the expansion of a full-scale urban market economy, with entrepreneurial dynamics extending into agricultural production. The Tokugawa regime, although formally a coalition of the leading feudal lords (daimyo) and their household-administered regimes, nevertheless promoted a good deal of bureaucratization. Both the shogun's court, and the individual daimyo households, became heavily bureaucratized units training officials, keeping records, and administering laws. Competitive markets for cultural production sprang up, in literature, the arts, and entertainment, serving a mass audience made up of the now-pacified samurai warriors, commercial townspeople, and increasingly, even the rural population (Ikegami 2000). Tokugawa Japan maintained the symbolic hegemony of patrimonial household ceremonial loyalty and the dominance of a military aristocracy; but beneath this veneer, it was a society with numerous modern elements: economic productivity on a level with the leading sectors of contemporary Europe; entrepreneurial innovation (although with less emphasis on labour-saving machinery and more on refinements in quality of good production); *de facto* state centralization and considerable penetration and regulation of social life; a degree of citizenship participation and popular political movements; religious privatization and secularization; competitively expansive and innovative cultural markets. As I have argued elsewhere (Collins 1998, chapter 7), the opening of Japan to the West in the 1850s was no sudden incentive for a miraculous leap of catching-up within the following generation, but merely an incident along the pathway of Japanese modernization that was already long since along the way.

For Europe, finally, we may briefly list a series of developments which broke through patrimonial/household organization, at first supplementing it, providing alternatives on the margins for organizing social action in more flexible ways, and eventually culminating in bureaucratic and market Juggernauts which demolished what remained of patrimonial/household dominance (Collins 1986, chapter 3). These steps included: the Christian church itself, with its bureaucratic staff and universal recruitment (which however also slipped back into patrimonial structures by amalgamating with household-based aristocracy); monastic reform movements, aimed at removing the 'corruption' of familistic influences and maintaining the purity of the organization (such monastic movements ca. 1100-1300 acted as entrepreneurs leading a phase of economic expansion); the development of full-scale administrative bureaucracy around the Papacy and its law courts, a model which was gradually emulated by secular states; development of a law of corporations, based at first on religious bodies and then expanded to secular organizations; the universities, which grew up in

conjunction with papal bureaucracy and the career opportunities for trained clerics and lawyers; and finally the military revolution of the 1500s and 1600s, which both replaced patrimonial/household relationships inside the warrior class with a bureaucratic organization of troops, and gave impetus to create a tax-collecting administration which began to march towards the all-pervasive bureaucratic state. These various moves can be seen as a front of increasingly bureaucratic organization advancing across the landscape once totally dominated by patrimonial households.

Although the impetus came from religious and then governmental and military organization, it transformed market relationships into increasingly dynamic and entrepreneurial forms. Slow-moving market structures eventually built up speed into a cumulatively self-sustaining dynamic of recurrently creating new product-niches. European capitalism became consciously innovation-oriented, focussed on speculative financial investment, seeking out new markets, sources of materials, modes of production and consumer products. There is of course always a niche-seeking and potentially innovative aspect to markets everywhere; and we find the speculative, deliberately innovative reorganization of production and distribution at times in Asia, notably in Sung China and in Japan both in the period of warring feudal states (1450-1580) and in the Tokugawa. Europe arrived at this level of intensity of economic entrepreneurship by around 1600-1800. By this point, two main developments occurred which set off the European trajectory from the Asian paths. First: European political structures fairly whole-heartedly came to support capitalist innovation, instead of maintaining indifference or even some degree of hostility to it. And second: the distinctive development of rapid-discovery science, which combined intellectual competition with breeding innovations in laboratory equipment, provided a stream of products which could be sold on capitalist markets.

Similarities and Divergences in European and Asian Modernization

The difference between European and Asian modernization, or advances in techniques of social power, is not a sharp divergence, but a pattern of considerable parallelism and overlap. In all these parts of the world, the breakout from patrimonial/household organization was pioneered by universalistically recruiting religious movements, and especially the internally bureaucratic organization of celibate monasteries, which typically developed as economic entrepreneurs. Thus Weber was partly right and partly wrong about the role of religion in modernization: right is seeing universalistically recruiting churches as a crucial path towards modern social

structures, but wrong in assuming that only the Christian churches fully followed this path.

In varying degrees, government bureaucracy was created everywhere, although often set back by feudalism and weakened by amalgamation into patrimonial bureaucracy. Chinese bureaucracy was the leader along this path, although it never overcame patrimonial elements; European state bureaucracy was notably weak until the military revolution gave a relentless competitive incentive to strengthen tax-extraction systems and penetrate and regulate society. If Europe eventually went further in state bureaucratization, this needs to be explained by a line of theoretical work still to be performed. Why did the military revolution not take place in China and Japan? Or more precisely, how did these states, at various periods, establish centrally controlled and supplied mass armies, but without undergoing the European train of consequences in tax administration and state penetration? For Europe itself, we have better understanding of the state-building consequences of the military revolution than of its initial causes. If the thoroughness of the military revolution is one of the relative differences in East/West trajectories, we need to examine both sides more deeply.

European states not only became more bureaucratic, more emancipated from *patrimonial/household forms* than their Asian counterparts, but also they became open to greater democratic participation, or at least more influenced by popular contention and mobilization upon state policies. European democratization played a role in the triumph of aggressively untrammelled capitalist expansion. Thus to explain the pathway of European societies, including their relatively greater development of capitalism than Chinese or Japanese capitalism, we would need to add a special explanatory theory of democracy. As I have indicated, this is a complex question, especially since one component of European democratization, republican power-sharing institutions, do not derive from the main line of modernization processes (the patrimonial/bureaucratic shift) but from various decentralized and alliance-structuring institutions found in tribal, feudal, and other circumstances. (Some analysis along this line is developed in Collins 1999a). This topic is too complex to be briefly summarized here; and the current state of research does not supply us with definitive answers.

The comparative history and sociology of world social change is a discipline in the midst of making discoveries and building theories. One sign of maturity is that we are getting beyond simplistic unidimensional models of social evolution or advance. Another sign is that after uncovering many of the institutional features of the development of the European

states, capitalism, and religion, we are beginning to produce some of this institutional history for Asian societies. Large blank spots remain. We are only beginning to understand the conditions which have shaped varying kinds and degrees of democracy. We have a good grasp on the consequences of the military revolution for state-building, but still lack a good theory of how the military revolution happened in Europe, and why it did not happen (or did not have similar state-building consequences) in Asia. And we are only just beginning to get a sociological account of the European 'scientific revolution', which I have characterized as the formation of rapid-discovery, instrument-innovating science; we still lack a good explanation of why rapid-discovery science appeared in Europe, and what prevented a similar development in the scientific communities (not rapid-discovery) that existed in China, Japan, and elsewhere. We do not yet know enough about the social histories of India, China, and Japan to answer these questions.

The best we can say at this point is that the European West was not as unique in its modernizing trajectories as we used to think it was; many of the processes which took part in the multidimensional change towards institutions of increasing social power or evolutionary dominance occurred in Asia as well as in the West. Long-distance, world-markets long have existed in Asia even more intensely than in the West. This is worth knowing, but it may well be that Gunder Frank and others read the wrong conclusions from this evidence: if world markets were almost everywhere, they would not be the crucial variable which explains new institutions of social power. It is also worth knowing that European dominance over the rest of the world is indeed a relatively brief moment, from about 1800 to about 1970. Europe was never so far ahead in techniques of social power as to be able to dominate the most advanced Asian societies, China and Japan; in accepting or importing certain Western innovations, these societies have been able to build upon their already quite effective forms of social organization.

If human evolution is a matter of social power, of social forms which impose themselves upon and obliterate other forms, there have been several different kinds of such power institutions. I have tried to show how one major form of organizational change, from patrimonial households to bureaucratic organizations, contributed to capitalist productivity, to state control over armaments, taxes and people, and to secularized, competitive cultural markets. Considerable shifts along the patrimonial/bureaucratic continuum took place in both Asia and Europe; European societies went notably further only after 1800. But there are additional features in the growth and spread of capitalist entrepreneurship, including world-market

conditions, interplays with state policy (and hence with democracy), and the technological spin-offs of rapid-discovery science. Some of these capitalism-accelerating features may be unique to Europe, for causes not well understood. In the political sphere, the power of the bureaucratic/centralized state was approached in several parts of the world, and something like the military revolution may have happened in some degree in several places. But the dominance of one state over another also depends upon geopolitical conditions which are not entirely reducible to economic resources or state centralization; these factors too have shaped which societies were able to impose themselves on others for certain periods of time. And cultural advance, in the sense of the power to impress others with the superiority of cultural forms - in short, the power to export culture - has existed in many parts of the world; one particular form of culture, rapid-discovery science, crystalized in Europe out of earlier forms of science which were less impressive in the ability to generate a stream of new and usable discoveries.

The West is not the only part of the world in which advances in social power have taken place. We are still coming to discover just which among the many innovations in social power were distinctive to Europe, and to understand what gave Europe a degree of world dominance in recent centuries. It is the task of future social science to build our understandings into a general theory, capable of explaining advances in social power everywhere.

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