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Industrialism and industrial man

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The logic of industrialism

Industrialisation has been abroad in the world for only about two centuries. One hundred years ago only England had crossed the great divide on the road toward the industrial society. Today, in the middle of the twentieth century, perhaps a third of the world's population lives in countries which are at least partially industrialised. The remaining two-thirds of the world's peoples, spurred by the revolution of rising aspirations, are in the throes of initiating the march toward industrialism. Probably by the middle of the twenty-first century industrialisation will have swept away most pre-industrial forms of society, except possibly for a few odd backwaters. This is

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All four were members of the coordinating board of an inter-university project on labour problems in economic development, investigating the relationships between industrialization, management and labour – financed largely by the Ford Foundation and involving, in particular, scholars at Harvard University, Princeton University, the University of California at Berkeley and the Massachusetts Institute of Technology. In their introduction to this article they refer to a range of publications that emerged from that project and to a prior article in the *Review* which explained the approach ("The labour problem in economic development: A framework for reappraisal", Vol. 71 (1955), No. 3 (Mar.).]

the great transformation in the history of mankind on this planet – more basic, more rapid, and more universal than anything that has gone before. The industrial society knows no national boundaries; it is destined to be a world-wide society.

What then are the common characteristics and imperatives which are inherent in this universal society toward which all peoples are marching? First, the industrial society is associated with a level of technology far in advance of that of earlier societies. The science and technology of industrialism is based upon research organisations: universities, research institutions, laboratories and specialised departments of enterprise. In this society it is axiomatic that the frontiers of knowledge are limitless. Industrial society is also characterised by vast investments in plant, equipment and machinery which demand the accumulation of capital on a massive scale.

Secondly, the industrial system demands in its labour force a wide range of professions and skills. Indeed, the creation of high-level manpower is one of the major problems encountered in the transition to industrialism. And, since science and technology generate continuous change, new skills and occupations are constantly replacing the old. Thus, industrialism requires an educational system functionally related to the skills and professions imperative to its technology. The variety of skills, responsibilities and employment conditions at the work place creates a new ordering or structuring of society. There are successive levels of authority of managers and the managed as well as extensive specialisation of functions at various levels in the industrial hierarchy. And, as part of this structuring process, the working forces are governed by a web of rules which prescribes such things as hiring, compensation, layoffs, promotions, shift changes, transfers, retirements, and discipline in the work place.

Thirdly, industrialism is associated with sizeable organisations. It is mainly an urban society. It is necessarily characterised by large governmental organisations. And the production of goods and services becomes ever more concentrated in the hands of large enterprises, whether they be private or public. In other words, industrial society is "the organisation society".

Fourthly, the industrial society, in order to survive, must develop a "consensus" which relates individuals and groups to each other and provides a common body of ideas, beliefs and value judgments. The working force, for example, must be dedicated to hard work, and its individuals must assume responsibility for performance of assigned tasks and norms. Regardless of how this is achieved the industrial society must secure a pace of work and a personal responsibility exercised by individual workers and managers unknown in economic activity in traditional societies.

These, in brief, are the common features of the industrial society. Every case of industrialisation, however, may not be expected to be identical. There are different roads to industrialism, and the choice of these roads is made by an elite minority which in effect organises and leads the march toward the new society.

For purposes of analysis we have delineated five ideal types of elite which may under varying circumstances and depending upon the pre-industrial society assume leadership in the industrialisation process. Each of these elites has a strategy by which it seeks to order the surrounding society in a consistent manner.

The dynastic elite is drawn from the old military or landed aristocracy, and it is held together by a common allegiance to the established order. It cherishes the virtues and the institutions of the past – the family, the national State, private property and the notion that people born into one class are sentenced by predestination to remain there. It organises a paternal industrial society, with a paternalistic State, paternalistic employers, and the idea of dependent workers, who are loyal to their superiors and beholden to them for their welfare and leadership. This elite, though in some cases moving slowly along the road, often organises a relatively smooth passage from the traditional to the industrial society. It was prominent in the industrialisation of Japan and in the early stages of industrial development in Germany.

The members of the second elite are drawn from a rising middle class. Its ideology is economically individualistic and politically egalitarian. Its creed is opportunity for the individual, *laissez-faire* as a policy of government, with decentralisation of decision-making power. This elite takes progress for granted, relying on the free interplay of market forces to promote the common good. It can perhaps best be identified with capitalism in the early stages of the Industrial Revolution in England and its subsequent spread to the United States.

The third elite may be characterised as the revolutionary intellectuals. It sweeps aside both the dynastic elite and the rising middle class. The revolutionary intellectuals, self-identified for the task of leadership by their support of what they claim to be a scientific and superior theory of history, set out to pour new wine into entirely new bottles. Their principal new bottle is the monolithic, centralised State. The prime movers of this society demand a rapid forced march toward industrialism, and they mould education, art, literature and labour organisations to their single-minded purpose.

Next are the colonial administrators who have been, in the past at least, the originators of industrialisation in some of the underdeveloped countries of the world. Their concern, however, is less with the countries they rule and more with the interests and the requirements of the home countries. For this reason they face an almost impossible task. They are not only exponents of a new system of production; they are also members of an external or alien society. Inevitably, with the march of time, they are dislodged peacefully or overthrown violently.

The fifth elite is composed of the new nationalist leaders and their followers in the emerging nations of the world. They may be drawn from the leadership of prior independence movements, military leaders, or persons who were sent abroad to be educated. The members of this group are in a hurry – to deliver and to deliver fast. They are sparked by nationalism, but in

itself nationalism is more of a sentiment than a rational system of thought. They are prone to seize upon any or all means to build rapidly the political and economic structures of their countries. They have no single philosophy of economic progress; but they have before them the choice of different roads – that travelled by the middle class, that of the dynastic elite, and that of the revolutionary intellectuals. As late starters on the march towards industrialism they can pick and choose both technology and organisational arrangements to effect the transition. The drive of these new nationalist leaders is well illustrated by these words of Gamal Abdel Nasser: "We shall march forward as one people who have vowed to proceed on a holy march of industrialising."

[...]

In summary, the imperatives of industrialisation cause the industrialising elites to overcome certain constraints and to achieve certain objectives which are the same in all societies undergoing transformation. The approaches which they take to these constraints and objectives explain in large measure the diversity among industrialising economies. Using this system of thought, or logic of industrialism, an examination will now be made of the extent and nature of the labour problems which are likely to arise during the development process.

The managers and the managed

The labour problems of industrialising societies have their origin in the structuring of relationships between the managers and the managed. They both give rise to and emanate from the web of rules which links men together in the new society. They are related to the power, position and policies of the managers of enterprises whether public or private; to the development of the industrial working forces; to the impact of industrialisation on the worker and his response thereto; and to the making of the rules by workers, managers, and the State. Each of these aspects will now be examined briefly.

The managers of enterprise

The managers of enterprises, public and private, and their technical and professional subordinates are part of every industrialising elite. Management is a hierarchy of functions and people. It includes entrepreneurs, managers, administrators, engineers, and professional specialists who hold the top positions in enterprises. So defined, management is crucial to the success of any industrialisation effort. It may be viewed from three perspectives: as an economic resource, as a class and as a system of authority within the enterprise.

As an economic resource, management becomes more important with the advance of industrialisation. The number of persons in the managerial ranks increases both absolutely and relatively in the economy. This is the inevitable consequence of larger capital outlays, the pace of innovation, the

use of more modern machinery, the growth of markets, and the increasing complexity of advancing industrial societies. The accumulation of managerial resources, moreover, requires ever-increasing outlays for technical and managerial education, and forces educational institutions to become more functionally oriented to the training of skilled technicians, engineers, scientists and administrators.

As a class, management becomes more of a profession as industrialisation progresses. In the early stages of development, where enterprises may be new or very small, access to the managerial ranks may be largely dependent on family relationships in some societies, or political connections in others. But as the managerial class must inevitably grow larger it becomes less arbitrarily exclusive. As industrial society lays ever more stress upon scientific discovery, technological innovation and economic progress, patrimonial and political managers are swept aside by the professionals.

As a system of authority, management becomes less dictatorial in its labour policies. In all societies, of course, management cherishes the prerogatives of a rule maker. But others, such as the State and the labour unions, also seek and gain a voice in the rule-making process. As industrialisation advances, they tend to limit, to regulate or sometimes even to displace the unilateral authority of management over the labour force. As a consequence, dictatorial or paternalistic direction gives way to a kind of constitutional management in which the rules of employment are based upon laws, decisions of governments, collective contracts, or agreements. In a few situations employer-employee relationships within the firm may develop along democratic lines with joint participation.

The differences in management are related to the stage of industrial development and also to the elites which assume leadership in the society. The dynastic elite, for example, tends to perpetuate a family-oriented and paternalistic managerial system, whereas the middle-class elite introduces a professionalised managerial class more quickly. The revolutionary intellectuals try to prolong the life of political management, while the new nationalist leaders may encourage the development of any or all kinds of management as the occasion demands.

Yet, despite the fact that the ranks of professional management are destined to expand in all industrialising societies, the managerial class has neither the capacity nor the will to become the dominant ruling group. The managers are characteristically the agents of stockholders, of state bureaucracies, or in some cases of workers' councils. Since they are preoccupied with the internal affairs of enterprise, which become ever more complex, the members of the managerial class are prone to become conformists rather than leaders in the larger affairs of society.[...]

The development of the industrial labour force

Most countries have human resources which are available for industrial employment, but no country is endowed with persons possessing the habits, skills, and "know-how" necessary for industrial development. Thus, the industrialising elites, and particularly the managers of enterprises, are required to build a large and diversified industrial labour force. This involves four interrelated processes: recruitment, commitment, upgrading, and security.

Recruitment is the first step in development of the industrial labour force. It is the process of selecting, hiring, and assigning persons to jobs. Commitment is a longer and more intricate process. It consists of achieving the workers' permanent attachment to and acceptance of industrial employment as a way of life. Upgrading is the process of building the skills, the work habits, and the incentives for productive employment. It involves the training and the energising of the working force. Security includes the various facilities which may be necessary to provide worker security both on and off the job.

From our studies and those of others we have concluded that recruitment, commitment, and upgrading of labour forces can be achieved reasonably well in any industrialising society. Industrial man is a product not of a particular climate or ancestry but rather of persistent effort and investment. Despite the allegations to the contrary, man everywhere is adaptable to the industrial system.

The more difficult and persistent problem is that would-be workers are more often pounding on the gates to be let inside the factory system. Surplus labour and chronic redundancy is the more common problem of most of the underdeveloped countries, even in the early stages of industrialisation. Population keeps expanding more rapidly than industrial employment; urban areas become overcrowded; underemployment persists in the rural areas even as industrialisation advances. The rate of population increase tends to fall only after living standards have risen substantially, and this takes time even in those countries making a rapid march toward industrialism. The newly industrialising countries, therefore, are faced with a dilemma – where and how to hold surplus labour. If held on the land, disguised unemployment mounts; if held within the factories, productive efficiency is impaired; if held outside the factories in overcrowded urban areas, the strain on community resources becomes intolerable. Only employment on massive, labour-intensive public works, roads or irrigation systems seems to offer an answer. Certainly, in the face of mounting pressures of population, industrialisation on its own offers no cure.

Here again the elites adopt somewhat different strategies in developing and managing industrial labour forces. The dynastic elite will rely more heavily on paternalistic devices to commit the worker to industrial enterprise; the middle class will depend upon the labour market; the revolutionary intellectuals will get commitment by ideological appeals,

direction of employment, and differential incentives. The dynastic elite is likely to require the employers to provide jobs for all permanent members of the industrial working force, but is unconcerned with employment problems outside the factory gates. The middle-class elite relies upon the forces of the product market to provide jobs in the long run. The revolutionary intellectuals either refuse to admit the existence of mass unemployment or mobilise a redundant labour force on public works projects. And the nationalist leaders tend to adopt any or all means which appear to offer the most satisfactory solution for the time being.

The response of the worker to industrialisation

Industrialisation redesigns and restructures its human raw materials, whatever the source. Thus, the development of an industrial work force necessarily involves the destruction of old ways of life and the acceptance of the new imperatives of the industrial work community. While the worker is in the end malleable, his metamorphosis gives rise to many forms of protest.

Characteristically, the partially committed labour force may express protest through excessive absenteeism, turnover, theft, sabotage, and spontaneous or sporadic work stoppages. The committed labour force is more likely to organise industry-wide strikes and formal political activity, while day-to-day grievances are presented through disputes machinery or labour courts, largely without stoppages. Marx saw the intensity of protest increasing in the course of capitalist development. We hold a contrary view. Our studies reveal that protest tends to reach its peak relatively early in the transformation and to decline in its overt manifestations as industrialisation reaches the more advanced stages. Incipient protest is moderated, channelled, and redirected in the advanced industrial society.

The elites, of course, must cope with the problem of worker protest, and here again they adopt different policies toward the formation of labour organisations which possess potential economic and political power. And in each society the emerging labour organisations adapt themselves rather distinctively to the prevailing environment. The labour organisations in the dynastic society remain "foreign" to the elite; in the middle-class society, they tend to conform to the product market structure. The revolutionary intellectuals regard labour organisations as instruments of and subservient to the State. The colonial administrators find labour organisations always in opposition, forever pressing relentlessly for national independence. And the labour organisations under the new nationalist leaders are often beset with conflicting and divided loyalties, sometimes conforming to and on other occasions bringing pressure against the new régime.

Most labour organisations, and particularly those in the newly industrialising countries, pose thorny issues for the elites. First, they lay claim to higher wages, while the elites may be preoccupied with capital formation. Secondly, they may strike at a time when work stoppages will be detrimental to production. Thirdly they of necessity demand redress of worker grievances

and complaints, while the nationalist leaders, in particular, may be intent upon achieving better discipline, a faster rate of work, and more output. Finally, labour organisations are prone to seek independence and freedom as institutions, while the elites are more concerned with making them politically subservient or insuring that they will be politically neutral or powerless.

Labour organisations, in summary, are essentially reflections of the societies in which they develop. The universal responses of workers to industrialisation, and the nature of expressions of their protest, are increasingly moulded to conform and contribute to the strategy of the industrialising elites. Though the leaders of labour seldom rise to dominating positions in a society, they are persons who always warrant recognition.

The rule makers and the rules

Industrialisation creates industrial workers, managers, and government agencies. All three are necessarily involved in industrial relations. And, just as industrialisation brings about different economic systems, so does it necessarily develop different "industrial relations systems". Again, according to the nature of the elites and to the stage of development, every industrial relations system fulfils at least three major functions. First, it defines the relative rights and responsibilities of workers, managers, and the State, and establishes the power relationships between them. Secondly, it channels and controls the responses of workers and managers to the dislocations, frustrations, and insecurities inherent in the industrialising process. And thirdly, it establishes the network of rules, both substantive and procedural, which govern the work place and the work community. Industrial relations systems reflect the persistent themes of uniformity and diversity which have been referred to in this analysis.

[...]

In effect, therefore, the industrial relations system provides the structure and the machinery for the functional relationship between the managers and the managed in any industrialising society. As a system it is related to the economic system with which it operates. Industrial relations systems, therefore, can be logically analysed and usefully compared. They are not unique, isolated institutional arrangements with particular significance only to a particular country. It is thus manifestly possible and desirable to compare labour problems in one country with those in another, and our analytical framework, we feel, offers a method for doing this.

The road ahead

As industrialisation advances, the forces making for uniformity among different societies become stronger than those perpetuating diversity. With the passage of time, each developing nation moves further from its pre-industrial stage and from its original industrial leaders. As they bring in new

recruits from different strata, the various elites become less distinct. The ideological differences tend to fade; the cultural patterns of the world intermingle and merge. The once vast ideological differences between capitalism and communism give way to more pragmatic considerations in the operation of industrial society. Increasingly, the elites all appear in the same light.

The trend toward greater uniformity is attributable to a variety of pressures. Technology in itself is a unifying force. The thrust of progress also serves the cause of uniformity, and gradually there is less difference between the various categories of workers and industries in each country. Education brings about a new equality with the elimination of illiteracy and the development of skills.

The State everywhere becomes ever larger and more important. Larger-scale enterprises are common hallmarks of all advanced industrial societies. Finally, the compulsion to compare helps to achieve uniformity. The pressures for progress and participation in a new economic order are enhanced by the world-wide character of industrialisation, by international trade, by travel, by modern means of communication, and by global exchange of ideas.

The road ahead leads to what we call "pluralistic industrialism". The fully developed industrial society in our view will be one in which the struggle between uniformity and diversity continues, a society which is centralising and decentralising at the same time, a dynamic society which, while marked by complex and conflicting pressures, develops a common cultural consensus.

In this pluralistic industrial society the State will not wither away. It will handle the conflict among the differing power elements in the society; it will control collusion by producers against consumers; and it will establish the relationship between members and their organisations. The managers of enterprise, whether public or private, will be professionals, technically trained and carefully selected for their tasks. They will be bureaucratic managers, if private, and managerial bureaucrats, if public. The distinction between managers will be based more upon the size and scope of their enterprises than upon the ownership of the means of production. Occupational and professional associations will range alongside the State and large-scale enterprise as centres of power and influence. And uniting the State, the enterprises and the occupational associations will be a great web of rules established by all three entities, but particularly by the first.

In this society conflict will persist, but it will take the form of bureaucratic skirmishes rather than class war. Groups will jockey for position over the setting of jurisdictions, the authority to make decisions, the forming of alliances, and the granting or withdrawal of support or effort. The great battles of conflicting parties will be replaced by a myriad of minor contests over comparative details. Labour organisations will cease to be parts of class movements urging programmes of total reform, and become more purely pressure groups representing the occupational interests of their members.

In this emerging world-wide society industrial man will be subject to great pressures of conformity imposed not alone by enterprise management but also by the State and by his occupational association. For most people any true scope for the independent spirit on the job will be missing. But, outside his working life, industrial man may enjoy more freedom than in most earlier forms of society. Politically he can have influence. He will enjoy higher living standards, greater leisure, and more education. And, along with the bureaucratic conservatism of economic life, there may be a new Bohemianism in other aspects of man's existence which can give rise to a new search for individuality and a new meaning to liberty.

Technology need not, as Marx thought, reach into every corner of society. Indeed, the conformity to technology may bring a new dedication to individuality. This is the two-sided face of pluralistic industrialism that makes it a split personality looking in two directions at the same time. Utopia, of course, never arrives, but industrial man the world over will probably acquire greater freedom in his personal life at the cost of greater conformity in his working life. Industrialism can and will bring about for him a better existence.