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ERRING MODERNIZATION

The dilemma of developing societies.

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"The old and the vanquished does not immediately descend into the grave. The resistance and longevity of that which is at the point of vanishing are based on the instinct of self-preservation inherent to all that exists. This is the instinct that defends to the utmost everything once endowed with life. Universal economy does not allow the existing things to descend into the grave before they have exhausted all their strength. Conservatism in the historical world is as true an element of life as is perpetual motion and renewal; it expresses a most emphatic approval of the existing, a recognition of its right. The urge forward, on the contrary, expresses dissatisfaction with the existing, and seeks for a form better adapted to the new stage of the development of reason. Content with nothing, it is indignant, it feels cramped under the existing scheme of things. Historic development moves in obedience to both forces, balancing them against each other and thereby saving itself from one-sidedness."*

In a work written approximately ten years ago and published five years later, I defined modernization as "the process by which modern scientific knowledge covering all aspects of human life is introduced at varying degrees, first in the Western civilization, and later diffused to the non-Western world, by different methods and groups with the ultimate purpose of achieving a better and more satisfactory life in the broadest sense of the term, as accepted by the society concerned."(1)

Five ambiguities were discussed in the use of the term.

(a) Modernization has been identified with different types of social change, some of which were the conditions and effects of moderni-

*Alexander Herzen, 'Letters on the Study of Nature', (1845), in Selected Philosophical Works, p. 213. Foreign Languages Publishing House, Moscow, 1956.

zation, rather than the essential process as such.(2) (b) Modernization has been identified with Westernization.(3) (c) Modernization has been identified with systems of government upheld in the West, and other constituent elements of contemporary Western life. (d) Modernization has been identified with certain essential features of modern society such as capitalism and industrialism. The Western capitalistic and industrial experience is considered as the guide to the developing societies. (e) The confusion of modernization with the popular concept of modernity, that is pertaining to the modern world, as in modern individualism, modern art, and modern family. Here too the model is from the West.

The tendency in contemporary research on modernization is to lump diverse phenomena under one label. There is a failure to arrive at a clearcut conceptual distinction between modernization as a general universal process and modernization as a variant of this general universal process in the form it assumes in the Western civilization. Since the 18th century we have Europe, America, Japan, Russia and China embodying the different forms of modernization, not to mention other countries in Asia, Africa and Latin America, with their varying experience of modernization.

This distinction is vital to make for those non-Western societies interested to introduce modernization, and retaining their individual cultural identity. A Japanese scholar had suggested this distinction on the following observations: Westernization means the replacement of an indigenous cultural element by a Western one, including its functional role. An example is the replacement of Japanese by English as a language of communication in certain circles. Modernization means to remould a cultural system into a new one without necessarily replacing it by a Western culture. The characteristics of modernization are as follows: A strong emphasis on nationality; a strong inclination towards science; an abundant use of mechanical power; an increasing urbanization of social life; and a deeper respect for human values of the kind that enhances the spirit of democracy.(4)

I have dwelt upon the conceptual differentiation at length in two earlier publications. We have to accomplish, to begin with, two kinds of conceptual differentiation. One is between modernization and Westernization, and the other is between modernization and non-modernization. Not everything in life can be modernized. Can we, for instance, modernize a belch? You can no doubt televise and broadcast a belch but it is only its transmission that is modernized, not the act of belching. Similarly we cannot talk of a modern smile. A smile of a Roman beauty centuries before Christ is of the same kind as a smile of a present beauty. You simply cannot introduce the concepts of traditional and modern to behaviour such as belching and smiling. Similarly in the realm of ethics there are values to which you cannot apply the concepts traditional or modern. A glaring instance is truthfulness. It is neither traditional nor modern. The concept of truthfulness accompanies us throughout history and it functions in an area where change is not desired for we do not value

the opposite of its decrease in intensity. Hence we have to be clear on the limits of our conception of modernization.

The philosopher Nietzsche, in 1874, stated his views on the problem of the horizon of thinking. In the opinion of Nietzsche, we must be able to forget and recollect the past and to will for the future, all at the same time, within definite limits.(5) In other words, we must have a philosophical set of criteria for selection: what to reject and retain from the past, what to reject and assimilate from the present, and what to strive for the future. This is what he meant by horizon.

It is a fact that in all normal psychological perception, the perceptual field has to be limited in order that the stimuli can be perceived. Take for instance sound. Beyond a certain limit we cannot assimilate the experience. The relevance of this principle to our theme, modernization, is that we cannot and should not respond to an unlimited variety of changes. Somewhere a line has to be drawn. It is with reference to this problem that I would like to offer certain directions of thinking on the modernization of the developing societies.

Let me first establish the validity of the concept of modernization as essentially the introduction of modern science and technology. Modernization, at present has been associated with a number of traits of developed societies, such as secularization, industrialization, commercialization, increased social mobility, increased material standard of living and increased education and literacy. The list of traits can be further increased as to include such things as the high consumption of inanimate energy, the smaller agricultural population compared to the industrial, and the widespread social security network.(6)

The above traits of a modern developed society should be viewed as the accomplished result of modernization. The process of modernization should be isolated from the result. One and a half century ago (1820), the agricultural labour force of the United States of America was 71.8 per cent of the total labour force.(7) In 1973, it was 4 per cent.(8) In 1820 the United States was in the process of modernization. Similarly the other traits of developed societies such as widespread literacy, and so forth, were not present in the United States of 1820. Yet we could not say that the United States was not a modern society then. It is clear that the process of modernization could be operative without the ensuing result, and it is this overall result which transformed the society of the present into something structurally different from that of a century ago.

I am by no means suggesting that the resultant effects of modernization are not important phenomena, or that they do not deserve much attention. All I am suggesting is that we differentiate the process of modernization from the resultant effects. What is universally valid should be isolated from the culturally relative. An analogous problem was felt by Mao Tse-Tung in connection with Marxism and the modernization of China. He said in 1940, "To nourish

her own culture China needs to assimilate a good deal of foreign progressive culture, not enough of which was done in the past. We should assimilate whatever is useful to us today not only from the present-day socialist and new-democratic cultures but also from the earlier cultures of other nations, for example, from the culture of the various capitalist countries in the Age of Enlightenment. However, we should not gulp any of this foreign material down uncritically, but must treat it as we do our food - first chewing it, then submitting it to the working of the stomach and intestines with their juices and secretions, in separating it into nutriment to be absorbed and waste matter to be discarded - before it can nourish us. To advocate 'wholesale westernization' is wrong. China has suffered a great deal from the mechanical absorption of foreign material. Similarly, in applying Marxism to China, Chinese communists must fully and properly integrate the universal truth of Marxism with the concrete practice of the Chinese revolution, or in other words, the universal truth of Marxism must be combined with specific national characteristics and acquire a definite national form if it is to be useful, and in no circumstances can it be applied subjectively as a mere formula. Marxists who make a fetish of formulas are simply playing the fool with Marxism and the Chinese revolution. Chinese culture should have its own form, its own national form. National in form and new-democratic in content - such is our new culture today."(9)

The reason why we should consider this distinction significant is our own historical position in the path of development. We are at the moment subjected to a continuous bombardment of news about the achievements of developed societies while what is equally relevant to us is the initial process of achieving. This initial process of achieving in the Western World, Russia and Japan around the turn of the century, is the introduction of modern science and technology into the productive sector and other significant sectors of social life. If anything is influenced by modern scientific thinking directed to the goals of increasing understanding of life and the universe, the elimination of pain and suffering, the enhancement of justice and personal wellbeing, and the planning of the future towards these directions, then we may say that modernization has taken place.

The problem however remains as to the kind of society we envisage. Historically speaking there is no such thing as a single type of modern society. The United States, Russia, Japan and China do not belong to a single type. It follows that although modern societies share many features in common, they each need not belong to the same type.

For the developing societies of Asia, it is necessary to rethink the goals and meaning of modernization, given the objective of retaining the cultural and religio-philosophical identities of the countries concerned. In the final analysis what we badly need in Asia is a basic outlook on modernization and the means thereof. This outlook should be based on science and rational knowledge and

should readily combine with the existing religious and cultural traditions of Asia such as Hinduism, Buddhism, Christianity and Islam. A similar basic outlook was operative in the West. It combines with Christianity and with non-religious humanism.

The first problem we should tackle is whether, indeed, it is true that the industrially more developed shows to the industrially less developed, the image of its own future. This is, however, only partially true, in so far as the image expresses the general and universal characteristics of industrialization. Russia, for instance was not modelled after the United States, though it was Karl Marx who said: "The country that is more developed industrially only shows, to the less developed, the image of its own future." (10) It did not even pass through the same historical phases of development.

A Japanese economic historian, Otsuka Hisao, made the following point: "Not only are many forms (stages and types) of pre-modern social system included in the very comprehensive term 'traditional society' (as we have noted above), but it is also impossible for there to be uniformity among the forms of social system found in the modern (or industrial) societies which have been formed one after another on the final disintegration of the traditional societies, and so, while our term 'modernization' of course includes 'the transition from feudalism to capitalism' as found in the modernization process as it occurred in the Western countries, it is a concept with a much wider semantic content than this." (11)

The above being the case, the problem arises how to envisage the path of differential development and modernization. This, I repeat, is the philosophical problem alluded to earlier. I am not referring to the obvious needs to man like having sufficient food and water, medicine, shelter, and clothing. There is no need to stress philosophy in this connection. But in things such as the concept of property, of profit, of the good life, philosophy should come in. Is it desirable for the Asian societies to do away with private property beyond individual needs, to do away with liberal capitalism? If this is desired, should the alternative be Communism? Or is it possible and desirable to strive for a social order different from either of the two?

Unfortunately there is hardly any profound thinking in this direction at the moment. A more recognizable problem is the striving for a scientific spirit. The absence of scientific creativity, as opposed to scientific practices, is noticeable in the great majority of countries in Asia. The modernization of a country cannot be successful in the long run if the scientific spirit is weak or absent. This is one example of a problem which is vital to the modernization of Asia and which has to be attended to by indigenous Asian scholars, as Western scholars, on the whole, have a different set of hierarchy in the grading of problems with reference to the study of Asia and the rest of the Third World.

So long as the developing societies are dependent on the developed societies for their science and technology, so long will the interest of the developing societies be subordinated to those of the developed societies. There are two kinds of dependence: initial dependence and continual dependence. For instance, a country may initially import fertilizer. In the long run it may be desirable that it produces its own fertilizer. This depends on how essential the production of fertilizer is for that country's economy. Though it is true that no country should attempt to produce everything itself, nevertheless the dependence on others for essential goods should be regulated as not to jeopardize the economic life of the country. A continual dependence on the developed countries for a vast array of production goods and other essential commodities would restrain the modernization of the developing countries.

The effort to develop science and technology in the developing countries has to be supported by the growth of the scientific spirit. (12) A number of thinkers in the 19th century had perceived this problem. Herzen, for instance, complained about the diletantism in science in the Russia of his day. The diletantes love the fruit of science but have no interest in understanding it. "Its love is such that it spreads itself thinly over the sea of knowledge and cannot achieve intensity at any point. Its love is such that it feeds upon its own affection, attaining nothing, never caring for anything, not even for reciprocation. It is a purely platonic, romantic affection which begets no offspring." (13) Hence the lack of creativity in science.

The attitude of the Russian people then portrayed by Herzen is reflective of the present situation in the developing societies. He said: "One of the essential qualities of the Russian character is its extraordinary dexterity in accepting and adopting the fruits of other people's labour, this being done not only with facility but with deftness. This is one of the most human traits of our character. There is a serious drawback to this quality however. We are rarely capable of thorough and sustained effort. We have acquired a taste for making others draw the chestnuts out of the fire and we have come to take for granted that Europe should produce every truth and discovery by the sweat of her brow. Let her have all the trouble of the pregnancy, of the difficult childbirth and weary nursing, and we will take the child. But there is one thing we have overlooked: the child is not of our flesh and blood and there are no organic ties between it and us." (14)

Herzen wrote the above in 1843, In 1882, at Calcutta, the Muslim revolutionary and reformer, Syed Jamaluddin Afghani, in a unique lecture urging the acquisition of the scientific spirit, stressed the role of an overall basic rational and scientific outlook in order to promote the growth and influence of the sciences. Afghani made an important observation of great relevance to the developing societies of to-day. The teaching of some sciences in school, in itself, would not lead to the emergence of a dominant, collective scientific spirit, unless it is related to the overall

basic rational and scientific outlook which Afghani called the 'spirit of philosophy'.

His judgement on Turkey is revealing. He said: "The Ottoman Government and the Khedivate of Egypt have been opening schools for the teaching of the new sciences for a period of sixty years, and until now they have not received any benefit from those sciences. The reason is that teaching the philosophical sciences was impossible in those schools, and because of the nonexistence of philosophy, no fruit was obtained from those sciences that are like limbs. Undoubtedly, if the spirit of philosophy had been in those schools, during this period of sixty years they themselves, independent of the European countries, would have striven to reform their kingdoms in accord with science. Also, they would not send their sons each year to European countries for education, and they would not invite teachers from there to their schools. I may say that if the spirit of philosophy were found in a community, even if that community did not have one of those sciences whose subject is particular, undoubtedly their philosophic spirit would call for the acquisition of all the sciences."(15)

Afghani noted that the first Muslims had no science but owing to the impetus given by Islam, the philosophic spirit arose among them leading to the acquisition of the sciences.(16) The contemporary dominance of the West, he recognised as the outcome of scientific power. "The Europeans have now put their hands on every part of the world. The English have reached Afghanistan; the French have seized Tunisia. In reality this usurpation, aggression, and conquest has not come from the French or the English. Rather it is science that everywhere manifests its greatness and power. Ignorance had no alternative to prostrating itself humbly before science and acknowledging its submission."(17)

The significant role of industry was stressed by Afghani. "Thus it is evident that all wealth and riches are the result of science. There are no riches in the world without science, and there is no wealth in the world other than science. In sum, the whole world of humanity is an industrial world, meaning that the world is a world of science. If science were removed from the human sphere, no man would continue to remain in the world."(18) He then drew the conclusion that it was the government who must be held responsible for the promotion of science. "Since it is thus, science makes one man have the strength of ten, one hundred, one thousand, and ten thousand persons. The acquisitions of men for themselves and their governments are proportional to their science. Thus, every government for its own benefit must strive to lay the foundation of the sciences and to disseminate knowledge. Just as an individual who has an orchard must, for his own profit, work to level the ground and improve its trees and plants according to the laws of agronomy, just so rulers, for their own benefit, must strive for the dissemination of the sciences. Just as, if the owner of an orchard neglects to tend it according to the laws of agronomy, the loss will revert to him, so, if a ruler neglects

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the dissemination of the sciences among his subjects, the harm will revert to that government."(19)

As modernization is basically the introduction of modern science and technology, the rationalistic outlook and definite humanitarian values, the generation of an all pervading scientific outlook constitutes a major objective. It should not only be a piecemeal introduction of applied sciences here and there. This alone will not enable the ruling stratum of society to perceive the entire problem with the depth of cognition characteristic of a mind infused with scientific energy. If the ruling stratum of the Third World were to think scientifically, they would give top priority to develop the sectors that mattered most. They would learn from the experience of the West.

The most significant revolution in the history of Western modernization was the agricultural revolution. It was this revolution which made the industrial revolution successful beyond a limited sector. I shall use this as an illustration of the contemporary confusion in the Third World regarding the conception of modernization, of the lack of independence in thinking, of the intrusion from abroad in our thinking, and of the fact that the above is the result of the lack of a rational, scientific and philosophical spirit of the kind that should constitute our basic outlook on modernization.

Elsewhere I have described this spirit as follows: "The characteristics of such a spirit are: (a) the desire to know the network of causes comprising a question, (b) respect for scientific methods, (c) the use of intelligence as widely as possible, (d) the cognizance of interdependence between the events, efforts and problems of the community or the universe, (e) the possession of confidence, clear and progressive, (f) the ability to think on both a short-term and a long-term basis, (g) the capacity to view a question from its whole perspective, (h) the ability to persist when facing any problem."(20) To plan on the basis of erroneous priorities, to neglect several necessary conditions of progress, to be dominated by erroneous thinking from abroad, reveal the absence of the above spirit. The essential elements in the Western experience of modernization most relevant to our contemporary condition have been neglected, as the instance of the agricultural revolution in the West will show.

An event, unparalleled in history which occurred in the West during approximately the last two hundred years was the enormous quantitative increase in the production of goods and services. A number of causes were responsible for this increase. Among the major causes were the mechanization of industry, the great exploitation of mineral resources, and the highly improved methods of transportation. The above achievement was further strengthened by a similar phenomenal progress in agriculture. New knowledge about growing crops and the raising of animals gave rise to the phenomenal increase in agricultural products on land that

had been tilled for centuries.(21)

The consequence of the agricultural revolution was enormous. Millions of farm workers were displaced into other occupations in a single generation. The conditions Europe was in during the 18th Century before the agricultural revolution resemble those of the developing societies in many instances, notably in the uncertainty of the food supply. "During that same century the Western world still reckoned its food supplies in terms of the vagaries of seasons and years. In many regions much of the livestock had to be slaughtered in autumn and the meat preserved by smoking, salting, or bottling, because of the lack of fodder to tide the cattle over the winter. In the absence of modern means of preservation and rapid transportation the great majority of people faced the prospect of a limited and unbalanced diet during the cold months when vegetables and fruits disappeared from their tables. In a little more than fifty years the technologists have employed machinery and chemicals to work an agricultural miracle."(22)

It is the successful tackling of the food problem that enables the West to sustain their endeavour in other fields of advancement. If the West did not pay such a great attention on its food supply, its society would not succeed in the other ventures of modernization and industrialization. The first condition of living well is to eat well. This great lesson is missed by the great majority of the developing societies of to-day. Many of them are dependent on others for food. They believe in buying food rather than in producing it sufficiently. Countries like India, Pakistan, Bangladesh, and many Arab and African states have not solved their food problem.

Population growth is the favourite explanation but Canada and America have the same problem accompanying their industrialization, though not Western Europe. "The population of these countries rose from about 5,000,000 in 1800 to 160,000,000 in 1949, and the rate of increase is about 1.4 per cent. per annum, compared with about 0.5 per cent. in all of Europe. These countries benefited from a large immigration, the United States having received 38,000,000 Europeans from 1830 to 1930."(23) Since the food problem is the most vital and urgent in the developing societies, we expect that top priority be given to introduce greater modernization and greater industrial participation in the food sector. The expenditure allotted by government on the planning of food production, and the degree of attention given to this problem in manpower planning, indicate the degree of priority given to it.

The neglect towards the food industry is also due to the influence of development thinking that stressed the greater necessity of industrialization as against food production. As an author observed: "Obviously the first necessity, if the underdeveloped countries are to develop, is more and better food. Much has been said about the need for industrialization of these countries as the quickest and most effective way to raise their incomes and level of living. But they cannot industrialize successfully

without a substantial improvement in their nourishment and human efficiency. This must depend primarily on improvement of their agriculture and utilization of food. In these countries from 60 to 80 per cent of the people are engaged in farming, but their productivity is so low that it falls far short of feeding the population. That stands as a roadblock against their advance. Unless they improve their food-producing efficiency, any diversion of their working force to industry will only make their food problem more desperate."(24)

The insufficient priority given to food production is only one of the numerous instances of a shortcoming in the basic outlook on modernization. This is an instance of what I would suggest to call 'erring modernization'. The idea of erring modernization is inspired by van Baal's concept of 'erring acculturation'. J. van Baal defines erring acculturation as the inability to achieve the desired objective within the process of culture contact. The instances discussed by van Baal were the various cargo-cults of New Guinea. Erring acculturation is found where the process of culture has gone astray, developing towards harmful directions, away from the realization of the definite objectives.(25) The following is his brief description of the cargo-cult: "In its simplest form a cargo cult starts with a prophecy announcing the return of the ancestors, who will arrive by steamship. The ship carries a huge cargo of all sorts of coveted goods of European or American origin. These goods are going to be distributed by the ancestors among the faithful who have obeyed the prophet's exhortations to construct a big storehouse and to contribute lavishly to the numerous feasts and dances which have to precede the return of the ancestors. Much dancing and praying is necessary and great feasts are arranged. All ordinary work comes to a standstill, the gardens are pilfered and the pigs slaughtered. On the beach a flagstaff is erected and nearby under a roof a watchpost is installed with orders to keep a permanent lookout for the expected ship."(26)

The acculturation between the natives and Western civilization erred because the means of attaining the desired objective, the abundance of goods, were magical and not rational and empirical.(27) The means were also harmful and hence we can speak of erring acculturation. "In all these cases we are entitled to speak of erring acculturation, of acculturation gone astray. People want to partake of Western ways of life, they even crave wealth. It is true that they do not shun labor but its results are extremely poor and disappointing when compared to the ultimate aim of their efforts. Where wealth and progress figure so obviously in the realm of myth and miracle, it is no wonder that people are induced by the poor outcome of their effort to shut their eyes to the logical sequence of things and concentrate on the realization of miracles, thus blocking their way to real progress. Repeated failures to realize the coveted miracle do not result in a better understanding of the natural order. The cause of failure is never sought in a misinterpretation of that order but unfailingly in the methods applied to enforce the revelation of the miracle.

The belief in miracles allows an endless variation of method in approaching the super-natural. Meanwhile, desire, stimulated where contact is intensified by an ever-increasing display of unattainable wealth, is more and more frustrated by repeated disappointment and ultimately breeds nothing but pure envy."(28)

In the acculturation phenomenon in many developing societies where no similar cargo-cult has emerged, there is nevertheless a muted form of the cargo-cult mentality, the belief that a charismatic leader can bring welfare. However since there is a higher degree of rationality in these society, such a belief eventually gives way to disappointment in the leader. Around the eve of the Indonesian Independence in 1945, there was widespread talk about the Ratu Adil, the Just Ruler who would bring welfare and prosperity. However this was only a vague expectation unconnected with any programme of action as practised by the adherents of the cargo-cult.

The nature of the societal reality impelled us to differentiate and qualify phenomena. The phenomenon which directly challenges us is erring modernization. What are the characteristics of erring modernization? They are the following: (a) The mere introduction of science and technology without the necessary related elements such as scientific reasoning, research, and the proper concept of relevance. (b) The gearing of science and technology towards aims which violated the values of modernization such as increased standard of living, social-justice, human wellbeing and the respect for the individual personality. (c) Negative imitation in the planning of development projects. (d) (29) Acceptance of perpetual dependence on foreign knowledge and skill beyond that dictated by the need of the moment. (e) The isolation of the modernization process from a philosophy collectively and consciously upheld by the elites constructed with reference to modern scientific knowledge. (f) The prevalence of a fragmented outlook on the function of science. (g) The acceptance of disintegrative practices such as corruption and maladministration. (h) Indifference towards the rule of law. (i) The presence, side by side with science and technology, of archaic modes of thought and beliefs to a degree which stifles the growth of a scientific outlook.

In erring modernization, these characteristics are conspicuous. They are everywhere present so much so that we may qualify the general trend in the modernization of most of the developing societies as erring. To illustrate what we mean by erring modernization, let me offer some instances from my country Malaysia. This type of instances is not confined to Malaysia alone, though the empirical embodiment differs. In 1963, the Food and Agriculture Organization of the United Nations in Rome furnished the Malaysian government with a report on soil conservation. Referring to the soil where tin has been mined, the author wrote: "The mine tailings are so nearly sterile that plant growth invades them slowly. Some research work is being carried on by the Forest Research Institute to find forest species that will grow on these areas. It is reported that tin mined areas cover about 200,000 acres. Only a part is

available for vegetative development. Topographically much of this land is suited to agriculture. With the exception of instances where enterprising vegetable growers who have reclaimed small tracts, this land remains idle. Eventually low grade vegetation slowly invades tin mined land. It seems reasonable to call attention to the considerable areas and to point out the need for a more aggressive program to determine the requirements for bringing the waste land into production of crops that may range from forest to vegetable crops."(30)

Until now, vast tracts of such land are still unattended. The introduction of modern mining technology had aggravated the problem of sedimentation and waste land. It deteriorated the condition of the rivers leading to periodic floods and it laid waste vast tracts of land. From a rational point of view, the gains accrued by government and private miners should be weighed as against the losses in floodings and laying thousands of acres waste. Modernization of the mining industry has been purely geared to the greed for profit without regards to the damage done to society. Hence this can be considered as erring modernization.

What is the alternative which can be pursued? One is the government mines the tin. The other is the government and the public forms a mining company. Priority should be given to shareholders living around the mining area. Every shareholder must have the same minimum share. Whenever an area is mined, it should be followed by soil treatment and revegetation effort. To support this, there should be continuous research. A ministry of research should be established to ensure that sufficient fund and attention are given to agricultural research, particularly on food crops.(31) In the West the bulk of research during the period of industrialization was borne by private industry. In the present developing societies the private industry is not interested in bearing the burden of research. Hence a ministry of research should perform the task.

Erring modernization as expressed in the neglect towards research on essential problems, the misdirection of research, or the waste of research resources, is partly responsible for the pessimism towards the tin industry. The Prime Minister, Tun Abdul Razak, when he was Deputy Prime Minister, said of the tin industry: "Tin, so long as we can find the material within our soil, will continue to be a useful source of revenue. However, tin is a wasting asset and its reserves in the soil of our country are shrinking."(32) Owing to erring modernization in the form of negligence, a great deal of mining was done without separating tin from other minerals or from its original aggregate. What was mined was the tin which had been washed away by natural forces, separated from its original aggregate, and by its own gravity found its way into alluvial clay and sand. From here it was extracted by simple dredging and washing.

This method of extracting tin was wasteful. It was suggested that 20-30% of tin found in a bed of amphibolite were thrown away

because many Malaysian miners had no technology to separate the tin from the aggregate.(33) Similar problem was confronted regarding tin and iron ore, found together. "In the many analyses of iron ores carried out by us, we have found that the ores from many areas although rich in iron, contain too much tin to be saleable. This is a typical Malayan problem, as we do not know of other occurrences of tin containing iron ores in such big quantities as in Malaya. Only in some parts of Indonesia is there a similar problem."(34) The mineral industry in Malaysia has many scientific problems. In addition to this there are many areas of research which is still unexplored as the one on medicinal plants. So is one in the field of microbiology. "Malaysia's climate conditions are very favourable for the growth of bacteria and fungi which could be made to produce useful products. We have also a large amount of organic wastes of various kinds, especially from the rotting of plant materials, e.g. pineapple wastes, palm oil wastes, coconut water, wood wastes, etc. The products which may be manufactured by microbiologic action are numerous. Amongst these, the antibiotics form a big group, and other useful products include yeast; alcohols like ethyl alcohol, butyl alcohol, propyl alcohol, and others; acids like lactic acid, butyric acid and propionic acid; acetone and other ketones; and proteins other than yeast. Another example is the production of fermented feed-stuff, which can be used in feedmix. The task of the researcher lies in the adaptation of known processes to local conditions."(35)

The pessimism of the then Deputy Prime Minister on the tin industry was justified but the ultimate reason was the inability to prevent waste owing to lack of scientific skills. The question again arises: what could the government have done? During the decade following Independence in 1957, the government could have planned with the University of Malaya to direct the teaching and research of the Department of Chemistry towards these special problems. Methods of isolating various minerals have been applied in Europe and Japan. A whole decade of potential improvement was wasted. I do not know for certain how the situation is now. I understand there have been some improvement in mining methods but this was done mainly by foreign companies.

Erring modernization occurs in typologically different areas. There is the area of simple ignorance, of inefficiency leading to losses, of corruption, of negligence, of callous greed. A very glaring instance is when elements of modernization are introduced into the logging industry. A study on the forest damage caused by logging in Sabah is indeed revealing. When large trees fall, the seedlings in the path of the log are smashed, either bent, broken off or uprooted. However, a greater destruction is caused by heavy bull-dozer and tractors. "When the log is hitched to a bulldozer the machine will have moved into the forest from its unloading point on a roadside along a track which has been made by the use of the blade. Occasionally it will not be necessary to use the blade and the weight of the tracks plus the log will cause the only noticeable soil disturbance. Even this is sufficient to effectively eliminate

regeneration in the skid mark and to snap off seedlings in the tractor paths. In wet weather and on undulating ground compaction and more frequent blade work respectively render even the minor tracks devoid of topsoil and consequently of the seedlings and of their roots. The major tractor paths are either compacted so much that very little will grow on them again or effectively lose their topsoil and thus their capacity for carrying useful regeneration."(36)

In 1966, an area of recently cut forest in Segaluid-Rokan Forest Reserve was assessed for tractor damage. It was found that 41.7 per cent of the seedling from an area of 108.9 acres were damaged. Nine years earlier when smaller equipments were used and the felling limit was higher the damage in the same forest was reported to have been 14 per cent. Thus the use of more modern and heavier equipment caused greater damage to the forest. To this is added the drive for efficiency. As the ecologist of the Forest Department of Sabah observed: "It is important to minimise the number of tracks made in removing timber, whether the land is to be regenerated with forest or to be planted with an agricultural crop. Much of the extent of damage in any one unit depends on the individual bulldozer driver. In wet weather more tracks tend to be made as a track in use quickly develops a muddy surface which is hard going. Most drivers are paid on production or receive productivity bonuses and aim naturally, at moving the maximum number of logs possible. At the limits of the extraction net work this often implies that a dozer will move in to each log rather than spend time on winching in. Similarly the emphasis on efficiency has resulted in recent years in the use of ever more powerful- and weighty - machines which cause considerably more disturbance than the less powerful ones."(37)

In at least the last ten years, officers of the Forest Department have been discussing many urgent problems connected with forestry. They have urged greater research allocation, better training, the preparing of forest inventory, and a host of other significant things. However change came rather slowly as far as wasting is concerned. The press carried the following report: "The timber industry in Peninsular Malaysia is throwing away every year about 700,000 tons of small logs which could have been turned into plywood and sawn timber. The reason for this wastage is because small logs are considered unprofitable to process, the deputy director of timber utilization research division of the Forest Research Institute in Kepong, Mr. Lew Wing Hing said. The Government was now considering 'speciality' mills to process these under-diameter logs. 'As far as possible, the Government will encourage the private sector to set up these mills themselves,' he said."(38)

The above came recently into the press. Forestry officers had been aware of this years ago. Their warning went unheeded. Seven years ago, two forestry officers delivered the following advice: "The rapid and apparently indiscriminate clearing up of forested lands for agricultural development has led to the flooding of logs in the timber market. The buyers have become rather

choosy and demand only the best produce and this has led to a high degree of wastage in that a lot of species that are hitherto marketable is being left in the forest only to be burnt or to rot. One way to overcome this would be to persuade the Government to impose a control on the clearing up of virgin forests in such a way that the rate of exploitation will not cause a flooding of the timber market. At the same time the Government should take steps to expand the wood-processing industry so as to absorb this excess supply. It is felt that the control of the clearing up of the forest will not affect development progress as the Government could concentrate on development of the already logged-over areas in State Lands first whilst exploitation of the virgin areas are being regulated. If this step is not effectively executed then the supply of logs from the State Land will quickly be depleted whilst at the same time areas of the forest reserves are continually being diminished due to excision. The Government may soon have to import timber for the population's requirement and this will be a burden on her resources. The Government should be made aware of this danger and be persuaded to take action to have adequate areas of forest reserves for production on a sustained yield basis as well as for protection."(39)

In erring modernization, the phenomenon of inertia is always present. It takes a long time to recognize a problem. Forestry research has not yet been given serious recognition. Between 1957 and 1966, the Forest Revenue went up to 31.3 million dollars (1966) from 14.4 million dollars (1957). The expenditure increased from 6.1. to 10 million dollars. The log increased to 2.6 million tons (50 cubic feet) from 1.1, million in 1957.(40) In 1966, the year of the highest revenue for the decade, out of a total revenue of 31.3 million dollars only \$0.35 million (350,000) was added to research, according to the 1966 annual report of the Ministry of Lands and Mines.(41) The Forest Department's expenditure for 1966 was 11.5 million. The surplus was 19.7 million. With such a surplus, the restriction of the research contribution to \$350,000 appears irrational, bearing in mind the presence of serious gaps of knowledge on fundamental questions of forestry which prevailed in the country.

Not all phenomena of waste, greed, corruption and inefficiency should be considered as erring modernization. In highly developed countries these phenomena are also to be found but we do not consider them as erring modernization. A specialist who introduced the most modern equipments and knowledge but who overcharged his patients out of greed should not be accused of erring modernization solely on that account. However if the Minister of Health would invest in equipping a highly expensive unit for sports medicine while he neglected rural health, we can speak here of erring modernization because the community's funds were affected, government's planning was involved, the logical order of priority in public need was violated. In erring modernization, that which is violated is not recognized as a desired objective. The violation is not considered as an anti-social act.

When a government introduces a plan for development, and that plan creates serious problems without solving the recognized ones, we may speak here of erring modernization. On the other hand actions by government officials which openly contradict the recognized principles of government should not be considered as erring modernization because such actions are not recognized policies. An instance is the case of the Custom's jetty in Penang, dealt with in 1969. "A contract for the construction of a new office block and jetty for the Anti-Smuggling Division of the Penang Royal Customs and Excise Department was awarded in December 1967 for \$260,100. The works which were originally scheduled for completion in February 1969 were not completed until September 1969 and cost the Government \$273,746.71. Two months after completion, it was reported that the new mooring pontoon costing \$24,540 could not be used as the launches and boats could not be moored alongside the building during low-tide when the water receded by about 100 feet from the building. Though detailed investigations are stated to have preceded the selection of the site for the office and the jetty, it would appear that inadequate consideration was given to the effects of tidal movements and part of the expenditure incurred has therefore become nugatory. As speed is extremely important in anti-smuggling operations and the officers of the Anti-Smuggling Division had apparently to run about 100 yards from their new office to the old mooring point for their boats, the Department has now suggested the construction of a new concrete jetty as an extension to the present building at an estimated cost of \$105,000. The new mooring pontoon, I understand, has broken up recently and has been towed away to the Public Works Department Workshop."(42)

The fact that the behaviour of the tide, something obvious even to a child, was reported two months after the completion of the jetty, was not due to erring modernization. The government does not plan, or is not incapable of recognizing, a useless jetty one hundred yards away during low tide! This is not an error of policy or failure to recognize a shortcoming. Similarly the millions and millions of dollars wasted arising from inefficiency pointed out annually by the audit report should not be taken as erring modernization.(43) Erring modernization refers to erroneous policy or failure to recognize a shortcoming which violates the goals of modernization. It is not a simple violation of a socially recognized norm as when a government officer embezzled government fund.

The phenomena of violation if carried out on a large scale have also effects on the process of modernization but they need not fall strictly speaking under our concept of erring modernization. Erring modernization only refers to policies, or omission of particular policies, or non-recognition of modernization problems by the government and the dominant elites of society, or the deliberate violation by them of norms that guarantee social-justice, health, respect for the human person, the prevalence of science and technology, the rational approach and the sense of happiness. It is only when these norms are violated by government and the dominant elites, or when they fail to recognize ways and means to achieve

the desired objectives, may we speak of erring modernization. Historically speaking it is government and the dominant elites who have been responsible for the modernization of society in its initial phase. The masses join the effort owing to their influence, and only subsequently they become an additional determining group.

So far we have discussed erring modernization as a phenomenon arising from within the country. It has been alluded earlier that the developing societies have been exposed to the mass media from the developed societies. There has been a sustained and intensive communication of ideas specially directed to the developing world. Some of these ideas have gained currency and some of them have a negative effect on the modernization process. I shall discuss instances of ideas that can have a disturbing effect on the modernization of the developing societies. The first is the suggestion that the developing societies should not embark upon pure research, that is research without immediate recognizable value. The second is that their tradition, particularly religious tradition, cannot be a mainspring of modernization. The Asian religious tradition, for instance, has been considered by some as a negative influence. These authors, one of which is Gunnar Myrdal, befog the issues rather than help us to understand them better.

Regarding the first one, the avoidance of pure research, the issue has been soundly presented by Edward Shils. He divided research for developing societies into three types. The first is the appraisal of resources. "Economic development requires the prospecting of resources, an appraisal of their magnitudes and qualities. This cannot be done without extensive and continuous surveys, applying the best methods of discovery and assessment. Soil, minerals, marine and animal life, vegetation, water resources, rainfall, insects, plant and animal diseases, manpower, public health, etc. - in all these matters a country which aspires to economic development must know where it stands, what it can count on, and what it must reckon with. The instrument for this appraisal is the survey, and it is the first task of almost every new state to organize its survey machinery and to staff it with competent persons."(44) This type of research does not require original contributions of fundamental character. The techniques are readily available. The problem in the developing societies is manpower shortage for this kind of research.

However there is another type of research urgently required. As he suggested: "This is technological research which goes beyond the enumerative and classificatory inventory, in the sense that it attempts to discover/is not some fundamental scientific law but rather a mode of adapting to new circumstances and industrial or agricultural process already known and used in other countries. This type of "adaptive research" is directed toward the application of existing technological knowledge to the climatic, geological, or chemical peculiarities of the local situation or the local product. Such research does not require great genius on the scale that would win a Nobel prize, but it does need a scientific discipline and

/a more analytical truth previously unknown. What it seeks to discover

disposition. It is the promotion of this kind of research that, in the near future, should be one of the main concerns of the ruling bodies of the new states."(45)

The third type is pure research that seeks to discover fundamental scientific laws. This is the one developing societies should avoid. "Fundamental scientific research on any considerable scale - pure research which has no immediate and evident application to economic problems - need not be placed very high on the immediate agenda of the new states. It is often costly, and to be worth doing it must be very well done, with an aptitude and sensibility which are probably still too rare in the new states. The scarcity of capital in relation to the most insistent needs to economic and social development almost forbids any fundamental research which requires expensive equipment or considerable numbers of expensively trained persons."(46)

So far there is nothing to disagree with Shils. His analysis of the problems was sound and accurate. But there is something seriously lacking in his views. He fails to formulate and present the distinction between two types of fundamental research, though this distinction is implied in rudimentary form in his analysis. There is an area in fundamental research which is not expensive, in which there is a great need for the discovery of fundamental laws or regularities, and in which thinkers of the developing societies can contribute. I shall not touch upon the physical and natural sciences as I am not very familiar with them. But certainly in the fields of the social sciences there is a wide scope and pressing necessity for contributions towards fundamental knowledge. Fundamental research should not be discouraged in general but only that which is expensive and luxurious within the situational context.

If we are not careful, this discouragement of fundamental research may spill over to all areas of science. It may influence government to downgrade research without immediate practical value irrespective of whether that research is expensive or not. Within the empirical historical context, so many things are done without any practical value, not to mention waste of expenditure. What is the practical value of an army in times of peace? Yet we do not suggest that developing states should not maintain an army. Building a sports stadium is, within the hierarchy of development priorities, certainly much lower than a research laboratory, but it does happen. The Malaysian government spent 4.2 million M\$ for the construction of a golf course and its club house between 1964 and 1966.(47) This is only one instance from one country. If we can appraise the amount of waste on such low priority expenditure in the developing societies, we shall reconsider our hesitation to advocate pure research of the expensive type. If wasting cannot be checked, it is better that the waste goes to pure research of the kind that may benefit developing societies. Furthermore there are organizations which can afford expensive fundamental research related to its industry, like Pertamina in Indonesia. To say that the Indonesians should not do creative and fundamental research in oil when they can afford it, is to keep them behind the developed countries perpetually.

Coming back to the social sciences, there is an extensive area of research which has remained unexplored in any part of the world. One is in the area of political stability. What should it be? What are the laws or regularities which bring it about? An author observed the following: "The older countries can give technical assistance to the newer countries in every field except the creation of political stability. There we have no formula to offer. We can advise on medicine, on agriculture, on population control; we can set forth the conditions for economic progress; we can suggest how to eliminate unemployment and how to establish great scientific and university institutions. But if an Indian asks: What should we do to insure political stability in India when Mr. Nehru leaves us?, the Western world has no useful advice to offer. The nearest thing to a formula for good government is to recommend that there should be a well-educated, professional civil service, which will carry on through thick and thin however bad the politicians may be. This is a good formula, as the remarkable economic progress of France during the last 15 years testifies so well. But there are countries where this will not work, because the politicians refuse to allow an independent, professional civil service to be created. After all, the process of attaining political independence is essentially one of substituting the rule of politicians for the rule of civil servants, so it will take some time to persuade new countries that good government depends more upon the quality of the civil servants than it does upon the quality of the politicians. This proposition may not even be true. Political science, if it is a science, is so underdeveloped that one can have little confidence in any of its propositions."(48)

There is a list of other problems which have not been touched upon by modern social science. While in the West people are now moving into a new area, that is, the study of overdevelopment, in the developing societies there is a need to have more studies on backwardness. New phenomena have to be conceptualized and explained. There is a need to establish a live and continuous interest in the sociology of corruption.(49) There is the problem of the captive mind, a type of captivity peculiar to the developing societies.(50) There is a need for a sociology of decadence, a sociology of the fools as a supplement to the sociology of the intellectuals.(51)

Side by side with new researches in new areas, we have to keep modifying existing concepts and appraise existing theories and interpretations in the study of developing societies. The colonial past has to be studied and reformulated in a meaningful historical context.(52) Problems of the transplantation of the social sciences to the developing society has to be continuously studied.(53) In all this undertaking there is no reason why the aim should not be the farthest limit of science.

Even in natural and physical sciences there are areas of fundamental research which are not expensive to study and which can profitably be done by scientists from the developing societies, such as the magnetic belt of the earth in certain places in Africa. The

problem here is not the desirability or feasibility of sustaining such an interest but the attitude of government and society. If there is not sufficient appreciation of science and scholarship on the part of the ruling elites, it would be difficult to generate an enthusiastic pursuit of science, any kind of science, the adaptive or the creative.(54) The problem lies herein, not in the realm of the theoretical formulation of objectives, whether the developing societies should promote pure science. This problem is actually unreal. Not to say pure science, even the adaptive kind of science has not been given sufficient attention.

For scholars who are in the position to do creative and original work with only modest institutional support there should be no restriction as to the kind of research that may interest them provided it shall not be a servile and uncritical import of ideas manufactured abroad, loosely fitted to the surrounding reality, and sterile in outcome. For some developing societies, the infrastructure of social science thinking is sufficient to enable original and creative contributions in new areas of knowledge. There is no reason why there should not emerge from these countries a creative and original work on the economics of backwardness and development, with contributions to fundamental economic thought. What is required is access to a good library and a certain amount of data. For those who are willing to take up the challenge this is possible, in all branches of the social sciences.

Scholars from the developing societies have to explore the possibility of doing fundamental research. Owing to the numbing effect of the emphatic suggestion that fundamental research can best be done in the developed countries, with the convincing arguments that it is expensive, that it requires a sophisticated supporting infrastructure, that priorities should be given to applied and adaptive science, the attempt to raise the issue has been thwarted. The fact that an Indian, Professor C. V. Raman, working in India, won the Nobel Prize for physics in 1930 was ignored. He was awarded the prize for his work on the scattering of light and for the discovery of the effect named after him.(55) If his mind had been numbed by the suggestion that fundamental research should not be attempted in developing societies, he would have not made the important discovery that won him the Nobel Prize.

Now if we were to ask ourselves the question whether it was more significant for India to have a scholar winning the Nobel Prize or its hockey team to win the international championship match, for which it had invested a sizeable sum of money, the answer should definitely be to win the Nobel Prize. A society that places a higher priority on sport, spending more time and money on its promotion than scientific research, is guilty of erring modernization, particularly when so much of its well-being depends on science and technology. There is definitely an area of creative and original research which can be explored without too great a strain on the financial resources of the country. What this area is has to be clearly surmised.

Another view on the developing societies which have been widely circulated concerns their religious tradition. I shall confine myself here to Islam, Hinduism and Buddhism. Myrdal stressed the negative influence of religion as practised in India and other parts of Asia, though he admitted that the basic doctrines of Hinduism, Islam and Buddhism are not necessarily inimical to modernization.(56) But religion has become the 'emotional container' of a way of life and work negative to development. Its sanction made it rigid and resistant to change.(57)

For the sake of argument let us agree that some attitudes sanctioned by popular religion are inimical to development and modernization. One such attitude is the acceptance of the misery of life and the direction of hope towards the life after death. We have nothing to disagree with Myrdal here. The religious reformers themselves such as Jamaluddin Afghani and Ram Mohan Roy and hundreds of others during the last one hundred years had been more conscious and scathing in their attack of the existing order and religious practices than Myrdal and other Western social scientists. The point is Myrdal's evaluation of the reformers.

It is not easy to see the consistency of his statement. While Myrdal agreed with the need for religious reform, he nevertheless rejected the attempt to reform popular religion in terms of the lofty ideals of that religion which he called 'the higher level'. Talking about the Indian reformers, he said: "Although recognizing that their basic approach was determined by Western influences, these reformers were able to find support for their ideals in the Hindu scripture from the ancient time of the Vedas; this, indeed, became their chief message. They could also point to an ancient ideological lineage of reformers including Buddha. The present-day social reformers in India who, like Panikkar, attach interest to religion, follow this method of attempting to show that pure Hinduism in its original form did not sanction the popular prejudices and social arrangements they now want to change. Occasionally they express themselves as if the Hindu religion had no connection with attitudes, customs, and institutions, and maintain that they are out to reform not religion but society; this may be good tactics, but it is bad sociology. Religion as a social fact cannot be identified with, and has, indeed, very little relation to, the religion on the 'higher' level that they want to preserve."(58)

The above is a statement of someone who has little understanding of the dynamics and phenomenology of religion and of someone who has missed to read the meaning of his own cultural history. Would Myrdal deliver the same judgement on Christian reformers who disapproved of slavery at the time when the institution was strongly entrenched in the West? Would he say that their rejection of slavery had very little relation to Christianity on the 'higher' level? Would he tell these reformers were he to be there then, that their claim to reform not Christianity but society, was good tactics but bad sociology? What is the meaning of his remarks? What should be done? Should they not attempt to reform society in the light of their own religious tradition? If so why did Myrdal consider it bad sociology? I should say it is good sociology, to use the existing framework of reform.

Apparently Myrdal has a negative attitude towards the potential function of religious reform. His attitude inclines towards the uprooting and undermining of the Asian religious tradition. There are only three choices opened to the Hindu society. Abandon Hinduism and change to another religion, abandon Hinduism and have no religion at all, or reform Hinduism. Myrdal offered an ambiguous opinion. He was inclined to doubt the aim of the reformers. It appears from his writings that the Asians should abandon their popular religion but Myrdal did not suggest what religion they should have. Maybe he did not think it necessary for society to have a religion.

His view on religion is extremely elusive. The above reading of Myrdal can be negated by the following quotation: "An important problem for research is whether, to what extent, and how fast, secularization is diminishing the force of this source of social inertia and irrationality, as a result of the spread of the modernization ideals and of planning and other social and economic changes. Probably, secularization varies in amount and speed both for different social groups and for the several countries in South Asia. It should be noted that from the point of view of the modernization ideals what is needed is merely the eradication of the ballast of irrational beliefs and related valuations. As pointed out in Section 2, no religion on the 'higher' level need be in conflict with the modernization ideals. But as religion is part and parcel of the whole complex of people's beliefs and valuations, their modes of living and working, and their institutions, it needs to be reformed in order to break down inhibitions and obstacles to development."(59)

Here he is in favour of reform but two paragraphs later he considered the effort of reformers as bad sociology. What he might have meant is to reform religion without reference to its ancient scriptures. Whatever his view is, his treatment of Asian religion is one sided and he exaggerated the negative influence of religion on development. He said: "Among the masses, these traditional beliefs that with their related valuations have religious sanction are normally irrational, for they are superstitious and imply a mystical rather than a logical way of thinking. Religious conceptions to that degree irrational have not commonly been held in the West for centuries. To a considerably lesser extent, irrational beliefs sanctioned by religion are also present among the educated class, including its intellectual elite. Even Islam and Buddhism, which at the rarefied 'higher' level are so rational and free from iconism and magic, have, in the forms in which they actually influence life and social relations, become demonological and permeated by taboos, magic, and mysticism. In particular, social and economic stratification is accorded the sanction of religion. The attitudes, institutions, and modes of living and working that make up and are reflected in this stratification do constitute very real inhibitions and obstacles to planning and the execution of plans. Considerable differences exist among the countries of the region, but in general the inherited stratification implies low social and spatial mobility, little free competition in its wider sense, and great inequalities. This system of social relations is the product of history and is strongly supported by custom in traditional society; religious beliefs and valuations furnish the emotional support. It is evidence of the stability and strength of this social and economic

stratification that is not commonly challenged by the under-privileged and exploited lower strata but is generally considered by them to be natural and right - a fate ordained by the gods and the whole paraphernalia of supernatural forces. It is this feeling, for instance, that restrains the untouchables in India from pressing into the temples and using the wells of the higher castes."(60)

Though the irrationality and superstition noted by him are indeed present, they are not the obstacles to development. In what way was the West less irrational and superstitious in the 18th and 19th century? Was Japan during the reign of the Emperor Meiji and subsequently free of superstition and magic? As Shakib Arslan, before the 2nd World War, pointed out, the Japanese did not abandon their religious tradition, that is their popular religion. "The rituals and ceremonies performed in these places from time immemorial are carried on even today with the same intense devotion and ardent faith. It is indeed their devotion to their gods and ancestors that has served them as a stronger shield and support for them even than nationalism and race-consciousness."(61) These rites and rituals and some of the tennets fall under Myrdal's categorization of superstition and irrationality.

It is not denied that superstition and irrationality are contrary to the modernization ideal. All I am saying is that they are not obstacles to development and modernization except in restricted areas of social life which are of no consequence to the general and collective trend of modernization.(62) They are comparable to illiteracy. Although we desire the elimination of illiteracy because it hampers modernization, its presence however, is not an obstacle to its own elimination, that is the modernization effort. In the hierarchy of negative influence they occupy a very low position. The degree of their negative influence is negligible compared to that of an indifferent dominant elite. Obstacles to development should be located here more than anywhere else.

The religious traditions of Hinduism, Buddhism, Christianity and Islam have what the Dutch historian Romein called 'eternal values'. By eternal values Romein meant a cultural product which does not easily become outdated, which will last for a long time. An eternal value has the following characteristics: (a) It is poly-interpretable. (b) It is not eclectic. In a philosophy or a work of art or other cultural products, each part is related to the other in a meaningful sense. (c) It is the product of a genius.

One of the examples which Romein presented was the difference between the works of Voltaire and Rousseau. Both were contemporaries. Romein considered the works of Rousseau eternal while those of Voltaire he did not. When we study Rousseau's 'Contrat Social' we feel as though he is our contemporary, discussing problems which are real to us in our times. In the case of Voltaire, from his works we know about the 18th century.(63) Each culture will have to decide what it considers eternal. Whether Confucius is out of date or not, only the Chinese can decide.(64) Romein made a penetrating distinction between the work of a genius and the work of a talented specialist. The

reason why the work of a genius lasts for a long time is its relevance to human problems which continue to exist.

This essay of Rensin is extremely important. In the Asian tradition, just to confine ourselves to the area discussed by Myrdal, there are the eternal values and the out-dated values. The poly-interpretability of eternal values was not appreciated as such by Myrdal. He said: "Hinduism can also become identified with rationalism and social reform, as can purified Buddhism. On the other hand, religion, like history, can be used by the opponents of all or some of the modernization ideals for their own purposes, as is said in the West, 'the devil can cite scripture'."(65) Surely, this difference of interpretations between Hindu groups does not necessarily negate the effort of the religious reformers.

Myrdal's negative and extreme judgement against the religious tradition of South Asia can be gauged from the following: "The modernization ideals are all, in a sense, alien to the region, since they stem from foreign influences. But they have come to be indigenous in the sense that they have been adopted and shaped by the intellectual elite, who, in turn, have endeavored to diffuse them throughout the population. The other valuations, held by the mass of people and in large part also by the intellectual elite, are mainly 'traditional': they are part of an inherited culture long identified with a stagnating society. Related to this is another distinction. While the modernization ideals, both individually and as a system of valuations, are dynamic and interventionist, requiring changes through public policy, all the traditional valuations, including those on the most intellectualized level, are static. Even when they are of such a nature as to lend support to the modernization ideals, they themselves are not the driving force."(66)

His negative judgement is expressed in several places. "Religion is, of course, crucial, but not the interpretation of old scriptures and the lofty philosophies and theologies developed over centuries of speculation. It is, indeed, amazing how much Western, as well as South Asian, writers think they are saying about the peoples in the region when they refer loosely to the impact of Hinduism, Buddhism, or Islam, which they think of as general concepts and often as intellectualized and abstruse. Religion should be studied for what it really is: a ritualized and stratified complex of highly emotional beliefs and valuations that give the sanction of sacredness, taboo, and immutability to inherited institutional arrangements, modes of living, and attitudes."(67)

The most sweeping of his statements is when he proclaimed religion to be entirely useless. He said: "Understood in this realistic and comprehensive sense, religion usually acts as a tremendous force for social inertia. The writer knows of no instance in present-day South Asia where religion has induced social change. Least of all does it foster realization of the modernization ideals - though, of course, appeals to religious principles on the 'higher' level can be used for, as well as against, those ideals, while cruder religious conceptions can be exploited to incite people to resistance

or to demonstrations, riots, and lynchings. From a planning point of view, this inertia related to religion, like other obstacles, must be overcome by policies for inducing changes, formulated in a plan for development. But the religiously sanctioned beliefs and valuations not only act as obstacles among the people to getting the plan accepted and effectuated but also as inhibitions in the planners themselves insofar as they share them, or are afraid to counteract them."(68)

Needless to say the above is a loaded statement against religion in South Asia. In his eagerness to discredit religion Myrdal made a simple blunder. There are numerous instances of religion inducing social change and modernization in South Asia. (Indonesia and Malaysia are included in 'South Asia').(69) The Muhammadiyah movement in Indonesia is a glaring example. So are the numerous reform movements in India and other countries. The point to raise against Myrdal is that he committed an act of intellectual injustice against Asians. He sees their religious tradition as basically backward except on the higher level where he considers it of significance. His coverage of religious reforms was very ill equipped. There was no reference to Jamaluddin Afghani or Syed Ahmad Khan, both of whom had induced great changes in the Muslim community towards modernization.

The injustice lies in the fact that he judged the effort at reform on the basis of a lofty conception of Asian religion as bad sociology. Sociologically speaking every great revolution in history has been brought about by attempting to reach the lofty ideals which is incongruent with the existing situation. This has happened time and again. The best instance is Europe. The Renaissance was inspired by the lofty ideals of the Greeks. The success of the Renaissance was also conditioned by the fact that the ideals of antiquity contained universal elements which remained relevant during the course of centuries. Why should it not be the case with the ideals of Hinduism, Buddhism and Islam? That a Hindu, a Buddhist or a Muslim reformer interested to bring his society towards the path of modernization would seek the philosophical basis of his thinking in the lofty ideals of his religion, is a perfectly valid approach. Why should he repudiate his religion as a great many in the West have done? The nature and history of religion in Asia differ from those of the West.

Another intellectual injustice is Myrdal's explanation of the motivation governing the South Asian intellectual's attachment to religion. He said: "At one level - that of the intellectual elite - some traditional valuations are articulated and thus available for inspection even if not for systemization. Although a few intellectuals are, or feel that they are, completely Westernized and secularized, most observe the prescribed rites of their inherited religion and are cognizant of the broad lines of its theology. They have a knowledge of their country's history, its architectural treasures, its literature and philosophy, music, drama, and dance, and its fine crafts, all of which have positive connotations and add to the richness of life. Their attachment to their nation's history, religion, and culture provides more than mere pleasure; it is a psychological necessity, the more so because of the long subjugation of these peoples and the shocked awareness of economic and social backwardness following upon

acceptance of the modernization ideals. Just as an individual, during a crisis that demands a reappraisal of his way of life, needs to establish himself as a continuous personality, with a past and a defined relationship to his social and cultural environment, so the most enlightened intellectuals in these countries feel compelled to identify themselves with their nation."(70)

The above is a psychoanalytic reductionism. The intellectuals alluded to appears to live at a lower level of awareness. The fact that they could be convinced of their religion as an autonomous intellectual achievement, not unconsciously engineered by a crisis situation, is denied them by Myrdal. It is true in some instances people cling to tradition in times of crisis but it is also true that at all times there are people who upheld a system of belief out of a genuine and independent intellectual conviction not induced by a crisis situation. The crisis situation is at best a stimulus, not the basis of the conviction.

His selection of sources is relatively biased. Myrdal considered Nehru as the Weberian ideal type while Radhakrishnan, the Indian philosopher who became president of India was not considered by him as representing the general type, the Hindu intellectual modernizer.(71) I have quoted Myrdal rather extensively to illustrate the kind of intrusion that occurs into the affair of modernization in the developing societies. His book has been widely circulated and it contains many sound insights. Nevertheless it can function as a distracting element in the thinking on modernization among indigenous intellectuals. The relevance of religion is questioned. Popular religion as a force of inertia is exaggerated. No attempt is made by Myrdal to classify the causes of inertia and arrange it in order of significance. Is the educational level of the population, the popular religious tradition, or a parasitic and exploitative ruling class, or the cultural and economic domination by the Western world the dominant cause of inertia in the developing societies? His book can be distractive in the sense that it leads people away from a deeper understanding of their problems by making them fail to recognize the major source of their predicament, an exploitative and parasitic ruling class, co-operating with foreign interests, and not the popular religious tradition.

Those who would like to attach much blame to popular religion in Asia as an impediment to modernization would have to do much better than Myrdal. Taking popular Islam, Buddhism, Hinduism and Christianity as practised in Asia, I would like to be shown one single instance when it blocked successfully the effort at modernization, that is the really basic effort at modernization. Where was there a determined and united opposition against the introduction of modern medicine, against the literacy campaign, against rational economic planning, against industrialization, against technology, against the introduction of scientific research, against any basic element of modernization, organized by popular traditional religious communities collectively? At best there were opposition to specific policies by certain groups as in the case of birth-control.

Is birth-control a necessary element of modernization? Though I am personally in favour of birth-control for over-populated regions,

I hesitate to pronounce backward a society that opposes it. Holland is the classical example. It is extremely overpopulated yet its government promotes a high birth-rate as a matter of principle by giving a sizeable allowance for each child. There are groups in Holland advocating birth control but the government sticks to its policy of child allowance (kinderbijslag). Holland is overpopulating itself and the world with government support. This policy originated from Catholic groups which obtained the support of the others. Some may consider it as irrational and yet they do not consider Holland a backward country for clinging to such an irrationality. There are many such irrationalities in Western societies and yet no one would dream of considering them as obstacles to modernization.

The identified cultural obstacles to modernization in developing societies do not operate at the fundamental level. They are occasionally found in the non-crucial sectors of social life. Popular religion does not impede modernization. Only in rare instances is a government policy interpreted as negative towards modernization such as the ban on cow slaughter in India, originated from popular religion. Even this need not go against modernization. If the Indian government is efficiently managed, it can collect the cows at various centres, use them for productive purposes, for manure, for milk, and for transport and agricultural labour, and sterilize a number of them to control their population. India can be as advanced and modernized as any state with all its cows protected and honoured.

The intrusion of disturbing ideas from the West into the developing societies takes many forms and some of them can be grave impediments to modernization. They are more direct impediments and more serious in consequence than what are attributed to the popular religious and cultural traditions. I have in mind a most dumbfounding suggestion from Albert O. Hirschman, professor of political economy at Harvard University, who had written continuously for some time on problems of economic development.

In 1951, Hirschman wrote an intelligent and scholarly article on the industrial nations and the industrialization of developing countries. Here he warned that 'Too much emphasis should not be placed on industrialization in development programs, and over rapid and uneconomic industrialization must be avoided.'⁽⁷²⁾ This is a sound view already widely held throughout the world though only in theory. The thrust of his article was that the industrial nations should not be afraid of assisting the non-industrial nations in acquiring the techniques and equipment of industrialization. He strongly advocated the policy of assistance.

However in 1967, he suggested a dumbfounding idea, that a little ignorance is good for launching economic development projects. Let us hear him in his own words. "The Karnaphuli pulp and paper mill is one of the earliest large-scale industrial enterprises to have been set up in Pakistan after Partition and Independence. Planned by the official Industrial Development Corporation to utilize the vast resources of the bamboo forests of the Chittagong Hill Tracts along the upper reaches of the Karnaphuli River in East

Pakistan, the mill started to operate in 1953. It had perhaps more than its share of technical and managerial teething troubles, but considerable progress had been achieved by 1959 when its management passed into private hands. Soon thereafter, a major upset endangered the very life of the mill: the bamboo began to flower, an event entirely unforeseen and probably unforeseeable in the present state of our knowledge since it occurs only once every fifty to seventy years: given the resulting paucity of observations, the life cycle of the many varieties of bamboo is by no means fully known. In any event, the variety that supplied the Karnaphuli mill with some 85 percent of its raw material flowered and then, poetically but quite uneconomically, died."(73)

It was known that the flowering of the bamboo would cause the death of the whole plant and in regeneration from the seeds rather than from the rhizomes. It was not known, however, that the bamboo that died upon flowering became useless for pulping since it disintegrated during transport by floating it down the river. After flowering it would take several years before the new shoots would be suitable for the intended exploitation. An organization was then set up to collect bamboo in villages throughout East Pakistan, now Bangladesh, and a research program was started to look for other fast growing species. Other alternative raw materials were sought. A similar phenomenon of underestimating resources and then attempting to find alternative resources, occurred in some successful irrigation projects.(74)

Hirschman discussed a number of projects in Peru and Uruguay which he believed had gone through the experience similar to the Karnaphuli Mill. The common structure, in his own words is as follows: "(1) If the project planners (and this usually includes the World Bank officials involved in financing the project) had known in advance all the difficulties and troubles that were lying in store for the project, they probably would never have touched it, because a gloomy view would have been taken of the country's ability to overcome these difficulties by calling into play political, administrative, or technical creativity. (2) In some, though not all, of these cases advance knowledge of these difficulties would therefore have been unfortunate, for the difficulties and the ensuing search for solutions set in motion a train of events that not only rescued the project but often made it particularly valuable."(75)

He sees the positive value of lack of foresight in planning. It releases creative effort to solve problems. He raises it to a principle. "We may be dealing here with a general principle of action: Creativity always comes as a surprise to us, therefore we can never count on it and we dare not believe in it until it has happened. In other words, we would not consciously engage upon tasks whose success clearly requires that creativity be forthcoming. Hence, the only way in which we can bring out creative resources fully into play is by misjudging the nature of the task, by presenting it to ourselves as more routine, simple, undemanding of genuine creativity than it will turn out to be."(76) He calls the principle that a venture is undertaken without adequate knowledge of its consequences as in the instances discussed by him, the Hiding Hand.

He recommended the principle of the Hiding Hand for the developing societies. "While some presence of the Hiding Hand may be helpful or required in eliciting action under all latitudes, it is no doubt specially needed where the tradition of problem-solving is weak and where invention and innovation have not yet been institutionalized or routinized. In other words, in developed countries less hiding of the uncertainties and likely difficulties of a prospective task is required than in underdeveloped countries where confidence in creativity is lacking. In the former there are large numbers of achievement-motivated actors who have acquired 'the conviction that (they) can modify the outcome of an uncertain situation by (their) own personal achievements'; in the latter, on the contrary, new tasks harboring many unknowns must often be presented as though they were all 'cut and dried' in order to be undertaken. Hopefully, the experience that difficulties can be successfully handled will eventually permit a more candid appraisal of tasks and projects."(77) For the principle to work, it is necessary that those involved are caught by the time the unsuspected difficulties appear. Having spent considerable money, time, and energy, they will be strongly motivated to exert all their problem solving capacity.

The phenomenon discussed by Hirschman is widely known and he himself alluded to this. It is very simple. When confronted with serious problems some people struggle to solve them. What is new is his approval of it, of the lack of foresight in planning, of the ignorance of fundamental data, and of courting troubles in order to overcome them. Worst of all he recommended it for the developing societies. I see in his view a clear manifestation of erring modernization. It justifies blunders which could be avoided. Actually his discussion on the Hiding Hand should not be considered as a contribution to development planning but a study of salvage behaviour arising from shortsighted development planning. As such it is instructive. But the Hiding Hand, as a principle of action is entirely misleading. If we were to apply it, how do we advise planners not to be too smart? How do we decide the quantum of ignorance necessary for the principle to operate? As an operational device the principle is entirely useless, true to its essence of promoting less foresight and intelligence.

As an idea it is dangerous to the developing societies. In the first place it is hastily presented. It was based on a highly limited number of cases. In the developing societies, improperly conceived projects have led to waste and stagnation. Several blunders could not be undone or diverted to other agreeable achievements. I understand there is a big sugar plantation in Malaysia which recently discovered that the cane it planted several years ago was not giving the expected yield. Sixteen years earlier Hirschman stressed the need to avoid uneconomic industrialization. In 1967, he approved of the experience of the Karnaphuli Mill and derived a principle from it. The mill was started on insufficient knowledge of the raw materials it depended upon. Instead of saying that the planners should be more careful and thorough in their appraisal, thereby increasing their foresight and rationality, Hirschman suggested it is good to be bold; it is good to start a venture, even if we lack foresight and rationality to anticipate problems.

Hirschman is also guilty of an erroneous notion of significance. If one's boat capsizes, one tries hard to swim to the shore. Without this accident the attempt would never have been made. This is an obvious truth. We cannot place any significance to it in planning because we cannot advise the sailor to neglect his preparation sufficiently as to cause the difficulty which will make him exert his utmost. Hirschman's principle can provide the shelter for bad planners while it is useless as a guide to help create good planners directly because the principle suggests that we should first be bad planners before we can improve through the effort of overcoming the blunders arising from our bad planning.

At a time when the developing societies are beset by many serious problems, to suggest a little ignorance is good for planning, is yet to add another serious problem to the existing stock. Though the phenomenon described by Hirschman exists, it should not be elevated to a principle of development. This effort is irrational and contrary to the modernization ideal. It is not always from traditional religious communities that some irrational ideas about development originate, but also from scholars on development. The principle suggested by Hirschman constitutes an element of erring modernization because that which lacks rationality and contrary to the modernization ideal is considered as an important part of the modernization complex.

Another danger arising from this principle is the ease with which it can be abused while at the same time it is difficult to apply. As I was writing this part an item appeared in the daily newspaper under the heading: 'Plan for \$137 million tourist complex shelved'. It reads as follows: "The proposal for a multi-million dollar tourist complex encompassing the Gunong Rapat limestone outcrops and disused mining pools in the surrounding areas has been shelved. It is understood that the limestone hills have been declared unsafe by geological survey. The State Economic Development Corporation, which was directed to develop the area, has been told not to proceed with it. The project, drawn up by consultants after feasibility studies, is said to involve a large capital outlay of about \$137 million and 'low and slow returns'. It was mooted about three years ago to put Ipoh and Perak on the tourist map. At present, due to lack of attractions tourists only make transit stops for lunch or refreshments on their way between Penang and Kuala Lumpur. The consultants' recommendations covered a 133 hectare site along the 6 km Gopeng Road, with facilities for both local and overseas visitors. Included in the proposed facilities for local tourists were picnic grounds, parkland, fishing, boating, camping, hiking, floating restaurants, a toyland, cable cars, bowling alleys and a children's funland. Attractions for overseas tourists included a greyhound track, hotels including a 200 room cave hotel, an aviary, marine land, rose and orchid gardens, hilltop casino, chalets, water skiing and mountaineering areas. A golf course, amphi-theatre, a heliport, and a skywalk were also proposed."(78)

The above project is the type best associated with the Hiding Hand because the returns are expected after a long time. This is the kind of project Hirschman considered favourable to the operation of the Hiding Hand.(79) The consultants had recommended it. They were unaware of the geological problem that could arise. If the geological

survey had not subsequently declared it unsafe, the State Government would have gone on with the project. This would suit the principle of the Hiding Hand. Later they might come across certain difficulties. There was already a serious landslide of a limestone hill a few years ago in the same town. The discovery of such difficulties might release a creative effort on the part of the State Government. Without these such a creative potential might remain untapped. If the consultants had known Hirschman's principle of the Hiding Hand, they could have hidden behind it if something went wrong with the project after it was started.

Let us assume that the project was continued without recourse to the geological survey. Would Hirschman have approved it? He might approve it out of ignorance of the geological danger. But what is wrong with such ignorance? Did not his principle of the Hiding Hand make it a necessary element in planning in developing societies? A principle requiring the element of ignorance is considered good for underdeveloped people. A backward people deserves an inferior principle while an advanced people does not need it. However Hirschman may say that his principle is meant only for projects of high priority, not one such as a tourist complex. What happens if the project was one for an industrial complex? He would have not have agreed to it if he was told that the area was unsafe. This attitude of his would certainly be the only rational and human attitude anyone could take in such a situation.

Rationally speaking the same should apply to other projects where there is no foreseeable danger to life. Whether it is a paper mill or a dam, serious difficulties should be anticipated and if this does not happen, it should be regretted and not accepted as a good policy to start with. Lack of ability to anticipate problems has been considered as a negative factor in the developing societies.⁷ if it is tied to a principle which cannot be applied in planning but which can easily be abused in the form of providing justification for failing to anticipate serious problems within the radius of vision of careful planners. It is clear that Hirschman was not merely analysing what took place, but he approved of the experience and welcome its recurrence.

I have discussed some of the distracting ideas on development. They are from the indigenous scholars. Many people from the developing societies would have read the books of Hirschman and Myrdal. They are distracting because they raise issues some of which do not reflect the reality of the situation. Their authors have no profound and adequate knowledge of various facets of the problems. They are not capable of weighing the significance of the problem. If Hinduism is against widow marriage or promoting the caste-system it is considered as a very serious obstacle to modernization but if governments are corrupt and obstructive to development, their secular philosophy is not condemned. While religion is held responsible for the miserable practices of some of its followers, the secular Western oriented philosophy of non-traditional political leaders is not held responsible for their misdeeds while in power. As a matter of fact there are sociologists and political scientists who suggest that corruption helps development.(80)

⁷ To encourage this in whatever form is a negative approach the more so
L distracting because they demand attention

There is no talk about 'popular secularism' and secularism at the 'high level'. There is no doubtful remarks made on the effort of secular reformers when they link their aim at reform to the high ideals of secular philosophy. There is no allusion to secularism as the 'emotional container' of vice, greed, aggression, corruption, decadence, inefficiency and negligence, as expressed in the life style of many ruling elites whose political and social philosophy is oriented to modern Western secularism. They talk about modernizing developing societies without themselves participating in the process, without struggling against backwardness in the experiential network of daily life. Their ideas have not been organically linked to practice.

Concerning knowledge from the developed societies, we have to make two basic classifications. One is fundamental knowledge of the sciences. The other is the analysis of developing societies. It is in this area that we should be on our guard. It is the superficial, distorted and ill equipped analysis of developing societies that we should reject and combat, not the other kind of knowledge available in the developed societies. We may be sympathetic to the Western civilization. Yet the duty remains for us to ward off the invasion of superficial generalizations, one sided analyses, or ideas pathogenic to our modernization. They are often disseminated by the academic free-booters. Scholars like Myrdal and Hirschman do not belong to this category but there are many who do.

When we read works on developing societies we should not only consider what the authors clearly stated in print, but also their unstated assumptions. A widely prevailing assumption is that there is not much to learn from earlier Asian writings on the conditions of progress. Many valuable works on these themes are ignored or not known. Credit for raising or focussing attention on certain problems is usually accorded to Western scholars or their contemporary Asian imitators who have limited historical perspective. One glaring instance is the attitude towards the works of the Indian reformer and economic thinker, Mahadev Govind Ranade (1842-1901).⁽⁸¹⁾ Myrdal cited him only in a footnote as Ranade was quoted by the author Myrdal was referring to. Myrdal is a strong objecter of the uncritical application of Western economic concepts and assumptions to the developing societies. Ranade anticipated Myrdal by more than half a century. A study of contemporary Asian problems should not turn the back to earlier Asian writings. In 1890, in the inaugural address to the First Industrial Conference at Poona, Ranade made several suggestions and observations which are valid today. He stressed the need to avoid being too much dependent on raw agricultural products for the national wealth.

It was not only the control of industry and commerce which had passed to foreign hands, but also that of skill and talent. The root cause, according to Ranade, was India's lack of organized skill and science.⁽⁸²⁾ Much has changed since Ranade's time but the problem remains. For the Asian countries to modernize and develop they must each have a rational conception of industrialization and agricultural development. This is readily accepted in theory but not in practice. The only rational conception of industrialization

seems to me to develop first industries related to the agricultural raw materials. Malaysia is a great rubber producer but Malaysians cannot make motor-car tyres. There are tyre factories in Malaysia but the industry, its science and technology, as well as its market, are controlled by companies of developed countries. Having more such industries shall not increase the scientific and technological potential of Malaysians themselves. Hence there is a form of industrialization which does not contribute to the increase of vital scientific and technological performance of the people of the country. The growth of industry in the West was entirely an affair of the people of the country.

The problems confronting the modernization of the developing societies are many and complicated. The most crucial is the nature of the ruling elites. There are a number of factors most crucial to the modernization and development of society. The obvious ones are (1) the nature of the ruling elites, (2) the educational level of the people, (3) their standard of living, (4) the state of the administration, (5) the resources of the country, (6) its cultural and religious tradition, and (7) the nature and degree of external economic and political domination. The nature of the ruling elites is the most crucial for it can determine the solutions to all the other problems. During the time of Ranade in India it was still a ritual problem for Hindus to go abroad. Now it is not so. Why? Because the ruling elites had broken away from this tradition. Hence religious and cultural traditions are not the serious obstacles dramatized by some authors. They become obstacles only to the extent that the ruling elites lend their support to them.(83)

A study of modernization that concentrates on all the various problems except that of the ruling elites misses the point. The moment we ask the questions how society remains backward and how it can be modernized and developed, we have to devote a great deal of attention to the ruling elites. Merely mentioning them in passing is not enough. What kind of ruling elites must we have? Are they already in our midst? These are the basic questions which have to be tackled if we are to understand the modernization of developing societies. To enumerate the existing problems, to analyse them in terms of one as being caused by another, without relating them to the ruling elites, is like studying human responses without reference to the brain. The most crucial social change is the change in the kind of ruling elites. If the ruling elites are negative, if they are corrupt, decadent, indifferent and inefficient, how can we replace them with those of positive qualities? This is the most challenging and crucial problem in the modernization of the developing societies. Erring modernization occurs because of the dominance of ruling elites whose moral and intellectual qualities are found wanting. The emphasis on the ruling elites is to widen the breadth of our understanding.

In this process to understand the greater complexity of modernization, new avenues of research must be opened. New concepts and methods must be devised based on empirical conditions in the developing societies. We should avoid what Mao Tse-tung described as vulgar plodding, collecting facts without theory. We must develop

all the necessary conditions of profound understanding, a goal cherished everywhere despite differences of philosophical systems. In the words of Mao Tse-tung: "To reflect a thing fully in its totality, to reflect its essence and its inherent laws, it is necessary, through thinking, to build up a system of concepts and theories by subjecting the abundant perceptual data to a process of remodelling and reconstructing - discarding the crude and selecting the refined, eliminating the false and retaining the true, proceeding from one point to another, and going through the outside into the inside; it is necessary to leap from perceptual knowledge to rational knowledge. Knowledge which is such a reconstruction does not become emptier or less reliable; on the contrary, whatever has been scientifically reconstructed on the basis of practice in the process of knowledge is something which, as Lenin said, reflects objective things more deeply, more truly, more fully. As against this, the vulgar plodders, respecting experience yet despising theory, cannot take a comprehensive view of the entire objective process, lack clear direction and long-range perspective, and are self-complacent with occasional successes and peep-hole views. Were those persons to direct a revolution, they would lead it up a blind alley."(84)

Our rethinking on modernization should take into consideration all relevant knowledge from the Western as well as the Communist countries. There are certain contributions which are more relevant from the West and certain contributions which are more relevant from the Communist countries. As noted earlier, the selection has to be constructively and critically accomplished. We should first revise our attitude. It is the prevailing attitude of our social, physical and natural scientists that they take interest only in knowledge that comes from the West. This is partly understandable owing to their institutional background. But a man who cannot free himself from his past conditioning cannot be an independent thinker. He cannot contribute effectively but as a retailer of imported knowledge. No successful modernization in history has been accomplished by an intellectual leadership whose sole function is to sell imported ideas without considering their nature and their necessity for the public.

NOTES

1. Syed Hussein Alatas, 'Religion and Modernization in Southeast Asia', Archives Europeennes des Sociologie, XI, Paris, 1970. Reprinted in Syed Hussein Alatas, Modernization and Social Change, Angus and Robertson, Sydney, 1972. All references are from this book. See page 22.
2. For instance, the weakening of religions dogmas was suggested as one of the characteristics of modernization. Clearly this is relative to the Western experience in certain section of the population. For this suggestion, see J.W. Hall, 'Changing conceptions of the modernization of Japan' in N.B. Jansen, (ed.), Changing Attitudes toward Modernization, p.23, Princeton University Press, New Jersey, 1955.
3. See A.J. Toynbee, The Present Day Experiment in Western Civilization, p. 24, Oxford University Press, London, 1962.
4. Hideo Kishimoto, 'Modernization versus Westernization in the East', Journal of World History, vol. vii, no. 4, pp. 872-873, 1963.
5. Friedrich Nietzsche, The Use and Abuse of History. Tr. A. Collins. Bobbs-Merill, New York, 1957. "This is a universal law: a living thing can only be healthy, strong, and productive within a certain horizon; if it is incapable of drawing one round itself, or too selfish to lose its own view in another's, it will come to an untimely end. Cheerfulness, a good conscience, belief in the future, the joyful deed - all depend, in the individual as well as the nation, on there being a line that divides the visible and clear from the vague and shadowy; we must know the right time to forget as well as the right time to remember, and instinctively see when it is necessary to feel historically and when unhistorically. This is the point that the reader is asked to consider: that the unhistorical and the historical are equally necessary to the health of an individual, a community, and a system of culture." Pp. 7-8.
6. For an instructive listing of traits, see O.W. Juneck, 'What is the total pattern of our Western civilization?' American Anthropologist, vol. 48, no. 3, 1946.
7. R. J. Rorbes, The Conquest of Nature, p. 43. Pall Mall Press, London, 1963.
8. 1974 Year Book of Labour Statistics, p. 78. International Labour Office, Geneva, 1974.
9. Mao Tse-tung, 'On new democracy', in Selected Works of Mao Tse-Tung, vol. II, pp. 380-381. Foreign Languages Press, Peking, 1965.
10. Quoted in D. Lerner, 'Modernization', Encyclopedia of the Social Sciences, vol. 10, p. 386. Macmillan, New York, 1968. I am not able yet to trace it to the original source.
11. Otsuka Hisao, 'Modernization reconsidered', in The Developing Economies, vol. III, no. 4, p. 390, 1965.
12. On this problem see Syed Hussein Alatas 'Intellectuals and Nation-building', Cultures, vol. 1, no. 4, Paris, 1974.
13. Alexander Herzen, Selected Philosophical Works, p. 52. Foreign Languages Publishing House, Moscow, 1956.

14. Ibid., p. 18.
15. N.R. Keddie, An Islamic Response to Imperialism, pp. 104-105. University of California Press, Berkeley and Los Angeles, 1968. This book contains translations from Afghani's writings.
16. Ibid., p. 105. On the role of the philosophic spirit, he further said: "It is philosophy that makes man understandable to man, explains human nobility, and shows man the proper road. The first defect appearing in any nation that is headed toward decline is in the philosophic spirit. After that deficiencies spread into the other sciences, arts, and associations."
17. Ibid., pp. 102-103.
18. Ibid., p. 103.
19. Ibid., p. 103.
20. Syed Hussein Alatas, Modernization and Social Change, pp. 166-167. Op.cit., Ch. 11, 'Backwardness and the will to think'.
21. See Shepard B. Clough, The Rise and Fall of Civilization, pp. 203-205. Skeffington, London, 1953.
22. R.J. Forbes, The Conquest of Nature, p. 41. Op.cit.
23. Shepard B. Clough, Op.cit., p. 224.
24. Nevin S. Scrimshaw, 'Food', in Technology and Development, pp. 38-39. Alfred A. Knopf, New York, 1963.
25. J. van Baal, 'Erring acculturation', American Anthropologist, p. 108, vol. 62, no. 6, 1960.
26. J. van Baal, op.cit., p. 108.
27. J. van Baal, op.cit., p. 109. "Almost everywhere the Whites on their first arrival were identified with ancestors. In a later phase of contact this association got its foundation in myth. Thus in Mimika, where the ancestors are said to have departed westward, they took all their riches with them, leaving the Mimikans nothing but a few simple things. The valuables were given to the Europeans and nobody knew anything about it until recently when the Whites came to New Guinea (cf. Locher 1956:180). Along these lines the myth succeeds in incorporating the Western world and all the things it brought into the old cosmology. The old world view, slightly elaborated, is maintained in principle. Against this background it is more or less self-evident that the Papuans approached the new world with means and tactics borrowed from the old, i.e., with all those methods which can be covered by the elastic but comfortable term of "magico-religious".
28. J. van Baal, op.cit., p. 111.
29. I have elsewhere suggested negative imitation as the opposite of constructive imitation, defined in the following: "The assimilation through imitation of technology and scientific procedures and knowledge valid for the development of Asian society can be highly constructive. Imitation saves time and energy. No society can develop by inventing everything on its own. When something is found effective and useful, it is desirable that it would be adopted and assimilated, whether it be an artifact or an attitude of mind. Constructive imitation is a feature of social life. It

is characterized by the following: (a) it is based on a conscious and rational choice; (b) it supports existing and sound values; (c) it considers the problems, if any, surrounding the adoption of the innovation; (d) its non-adoption would be inhibiting to society; (e) it increases the understanding of phenomena surrounding the innovation; (f) it does not disrupt other aspects of social life considered more valuable; (g) it does not create great strains detrimental to the purpose of the undertaking; (h) it enters the collective value system in the sense that it is recognized as valuable by large groups of people; and (i) it is not the effect of manipulation by external groups motivated by their own interests to the detriment of the adopter." Syed Hussein Alatas, 'The captive mind and creative development', International Social Science Journal, vol. XXVI, no. 4, p. 692, Paris, 1974.

30. W.S. Speer, Report to the Government of Malaysia on Soil and Water Conservation, p. 5. Food and Agriculture Organization of the United Nations, Rome, 1963. Report no. 1788, Project TA/MAL/LA.
31. Research into food production should be given top priority in view of the urgency of the problem. "The imports of agricultural products from overseas represent a substantial portion of the total imports into this country. In a normal year no less than 25.2 per cent of the total imports are in the form of foodstuffs, like rice, cereals, fruits, vegetables and dairy products. The cost of these amount to about \$500 million a year - a very large sum of money indeed! Most of these agricultural products can be produced locally and increased production should go a long way to increase the standard of living of the population, particularly the rural population who are among the lowest income groups." Mohamad bin Jamil and T.K. Van, 'Agricultural research in Malaysia', Proceedings of the Symposium on Scientific and Technological Research in Malaysia, p. 63, Singapore, Feb. 10-13, 1965.
32. Tun Abdul Razak, 'Conference opening address', in P.D. Turner (ed.), Oil Palm Developments in Malaysia, p. 7. The Incorporated Society of Planters, Kuala Lumpur, 1968. Proceedings of the First Malaysian Oil Palm Conference.
33. E. Markowicz, 'Research problems connected with Malayan mineral and agricultural raw materials', Proceedings of the Symposium on Scientific and Technological Research in Malaysia, p. 84, op.cit.
34. E. Markowicz, Ibid., p. 85.
35. E. Markowicz, Ibid., p. 94.
36. J.E.D. Fox, 'The soil damage factor in present day logging in Sabah', Proceedings Third Malaysian Soils Conference, Sarawak, May 1968, p. 206.
37. Ibid., p. 209.
38. The Straits Times, 9 Sept. 1975, p. 11. Singapore.
39. Baharuddin bin Haji Ghazalli, Mustafa bin Muda, 'Effects of economic development on future forest management in Pahang with particular emphasis on land development', The Malayan Forester, vol. XXXI, no. 4, pp. 281-282, 1968.

40. Leong Hing Nin, 'Highlights of forestry during the first decade of Independence in West Malaysia', The Malayan Forestry, vol. XXXI, no. 1, p. 13, 1968.
41. Penyata Tahunan Perhutanan di Malaysia Barat Tahun 1966, p. 13. Kementerian Hal Ehwal Tanah dan Galian, Kuala Lumpur, 1969.
42. Report of the Auditor-General, Federal Government, Malaysia, 1969, p. 192. Kuala Lumpur, 1972.
43. Another example is the following: "A considerable number of cows, buffaloes and goats were purchased by the Federal Government over the years and distributed to farmers and settlers through State Veterinary Offices under the Animal Breeding Schemes. There was apparently no proper control by the State Veterinary Offices over these animals and their progeny obtained from bailees for re-distribution. In a number of cases, the records maintained were either inadequate or not kept up to-date. Under the agreements entered into with the bailees, if the animal died or was lost through the negligence of the bailee, the bailee was to recompense the Government with the purchase price of the animal. The records maintained at the Johore Veterinary Department showed that 1,399 animals had died or were lost while in the custody of bailees, but there was no evidence to show that the death or loss had been investigated by the Department's Officers to ascertain whether the death or loss was due to the negligence of the bailee. Similarly, there was no evidence of investigation by Departmental Officers of the cause of death or loss of 669 animals in Trengganu and 54 in Malacca." Report of the Auditor-General, Federal Government, Malaysia, 1970, p. 176. Kuala Lumpur, 1972. Insufficient attention on the subsequent fate of the government's buffaloes, cows and goats, pointed out by the report should not be classified as erring modernization. However, if it becomes the prevailing government's attitude to tolerate such infringements of rules, this shall constitute erring modernization because modernization has to be based on the rational rule of law.
44. Edward Shils, 'Scientific development in the New States', in Ruth Gruber, (ed.), Science and the New Nations, p. 270. Pyramid Books, New York, 1965.
45. Ibid., p. 270.
46. Ibid., p. 271.
47. RAGFGM 1970, p. 176.
48. W. Arthur Lewis, 'Science, men and money'. Ruth Gruber (ed.), Science and the New Nations, p. 54, op.cit.
49. See Syed Hussein Alatas, Sociology of Corruption, Delta Orient, Singapore, 1975 (2nd ed.).
50. See Syed Hussein Alatas, 'The Captive Mind in Development Studies', ISSJ, vol. XXIV, no. 1, 1972; and 'The captive mind and creative development', ISSJ, vol. XXVI, no. 4, 1974.
51. An introductory attempt is contained in Syed Hussein Alatas, The Intellectuals in Developing Societies. Frank Cass, London (Forthcoming).

52. Such an attempt is made in Syed Hussein Alatas, The Myth of the Lazy Native. Frank Cass, London (Forthcoming).
53. See Ralph Pieris, 'The implantation of sociology in Asia'. ISSJ, vol. XXI, no. 3, 1969.
54. The parallel with the need for and attitude towards the army is great. A high esteem for a military career, one without a market value, is an attitude which requires to be developed. Dr. Wong Lin Ken, Professor of History at the University of Singapore, in his capacity as Member of Parliament, said the following: "We must make a career in the army meaningful also in social terms. This means that if a man, says, he is a colonel, for example, he should command the same degree of respect as if he has said he is a doctor or a lawyer. Unlike the doctor or lawyer, his contribution to society cannot be exactly measured. He has no market value, yet, in peace-time, as part of the armed forces, he contributes towards creating that climate of confidence in the safety and security of our nation, without which there can be no economic development. In war-time, if he fails, then we will be obliterated or become a subject people. He deserves a greater respect than has been accorded to him." Speech, Alexandra Community Centre, 17 Nov., 1973, Singapore, for the National Servicemen Send-off Party.
55. W. Odelberg, (ed.), Nobel: The Man and His Prizes, p.440. American Elsevier, New York, 1972. There were three others from the developing societies who won the Nobel Prize, two for physics from China in 1957, and one for physiology from Argentina in 1947.
56. Gunnar Myrdal, Asian Drama, vol. 1, p. 78. Penguin Books, London, 1968.
57. Ibid., p. 112.
58. Ibid., pp.106-107.
59. Ibid., pp. 105-106.
60. Ibid., p. 104.
61. Shakib Arslan, Our Decline and Its Causes, p. 78. Tr. M.A. Shakoora. Ashraf, Lahore, 1952.
62. See Syed Hussein Alatas, 'Collective representations and economic development', in Modernization and Social Change, pp. 53-64, op.cit.
63. Jan Romein, 'Eeuwigheidswaarden', in In Opdracht van de Tijd, pp. 268-269. Querido, Amsterdam, 1946.
64. Ibid., pp. 272-273.
65. Gunnar Myrdal, Op.cit., p. 80.
66. Ibid., p. 73.
67. Ibid., p. 103.
68. Ibid., pp. 103-104.
69. I have referred to these instances in my 'Religion and modernization in Southeast Asia'. Op.cit. The famous effort of Syed Ahmad Khan, the well known Indian Muslim reformer and founder of the Aligarh College, was apparently not known to Myrdal. His knowledge of the religious history of Asia is extremely limited. Syed Ahmad Khan

seriously attempted to introduce scientific agriculture to India. He went to the extent of trying to get experts from England to prepare a manual on agricultural machinery specially for Indian farmers. See Yusuf Husain (ed.), Selected Documents from the Aliqarh Archives, p. 39. Asia Publishing House, London, 1967.

70. Op.cit., pp. 74-75. He cited Nehru as an example.
71. Ibid., p. 76.
72. Albert O. Hirschman, 'Industrial nations and industrialization of under-developed countries', Economia Internazionale, vol. IV, no. 3, p. 615, 1951.
73. Albert O. Hirschman, Development Projects Observed, p. 9. The Brookings Institution, Washington, 1967.
74. Ibid., pp. 10-11.
75. Ibid., pp. 12-13.
76. Ibid., p. 13.
77. Ibid., p. 15.
78. The Straits Times, October 10, 1975 (Singapore).
79. Albert O. Hirschman, Op.cit., pp. 18-20.
80. For a refutation of this theory see Syed Hussein Alatas, Sociology of Corruption. Delta Orient, Singapore, 1975.
81. In a lecture to the Decca College, Poona, in 1892, Ranade rejected the assumptions of the Western economics of his day. He discussed twelve assumptions which he considered not valid for India. See M.G. Ranade, Essays on Indian Economics, Natesan, Madras, 1906.
82. Ibid., pp. 196-197.
83. When a ruling elite mobilized traditional religious values, however irrational they may be in terms of science and reason, the result can be astounding as the case of Japan has shown. For this, see Josefa M. Saniel, 'The mobilization of traditional values in the modernization of Japan', in R. N. Bellah, (ed.), Religion and Progress in Modern Asia. Free Press, New York, 1965. This and many other works by Asian scholars on religion in Asia are apparently not known to Myrdal as they do not appear in his references.
84. Anne Fremantle, (ed.), Mao Tse-tung: An Anthology of His Writings, p. 208. New American Library, New York, 1971. From the article 'On practice'.

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* This should be placed between no. 24 and 25 of page 42.

ABBREVIATION

- ISAS Institute of Southeast Asian Studies.
- ISSJ International Social Science Journal.
- PSSTRM Proceedings of the Symposium on Scientific and Techno-
logical Research in Malaysia.
- RAGFGM Report of the Auditor-General, Federal Government,
Malaysia.
- IJCS International Journal of Comparative Sociology.
- ICPMA International Conference on the Problems of Modeerni-
zation in Asia, June 28-July 7, 1965, (Report). Asiatic
Research Centre, Korea University, Seoul.

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