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SECONDARY EDUCATION IN SOCIETIES UNDERGOING RAPID SOCIAL CHANGES

Rapid social change is the mark of the middle of the twentieth century. Whether caused by the advance of science, by political ideology, by economic forces, or by all of these combined, such change has affected every part of the globe. It is hard to imagine a society of any size at this moment of history that would not describe itself as "undergoing rapid social change". To be static, indeed, is to be out of fashion.

To deal with this topic, one is forced either to grapple with all social forces and all secondary education —whether in East Africa or Russia, whether in the Azores or the United States— or, to narrow the topic, to the relation of secondary education to only a few types of social change. Since the topic is too large for one lecture in any case, the second alternative is surely the wiser.

Central to all social change in its effect on secondary education is the factor of economic growth. To study this question involves looking into such matters as the changing patterns of economic institutions and employment, the allocation of national resources, the attitudes and hopes of young men and women for

their own lives. These matters may seem a far cry from the secondary school, and one may well wonder whether an educator is fitted to discuss them at all. Few can claim competence as economist, educator and sociologist all at once. Yet a start has to be made, even at the risk of seeming foolish, for to discuss the secondary school without taking these factors into account is to delude oneself.

The history of secondary education in the continental United States is not a good source of information and guidance for such an analysis. The high school in the United States is the product of a society which for many years was settling on new frontiers and which enjoyed immigration from many other societies. The tradition of local control of schools and local taxation meant that the relation between secondary schools and national economic policy was never plain. In fact, it is only in recent years that any thought at all has been given to the problem. The usual arguments for the spread of secondary education to all children, now so largely accomplished, was that the *individual* would thereby be given a better chance in life, and that the *society* would benefit from a better educated voter. It was only last year, in a detailed report by Professor Eckstein to the Joint Economic Committee of the Congress of the United States, that a link was made between investment in education and an increase in the rate of economic growth. Professor Eckstein argued that the best policy for the United States to follow, if it wished to increase its rate of growth, was to invest federal funds in the schools:

> We therefore recommend that a program of Federal aid to education be enacted which would provide substantial financial assistance to those States which have the largest school populations and the least financial resources.
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> This recommendation is the single most important policy step which would promote the economic growth of the country in the long run. If we are serious about growth, we must be concerned with the tremendous underdeveloped potential of our labor force in those parts of the country where school systems are substandard.
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> Education must also be strengthened to accomplish the very specific national objectives of free-world leadership, the East-West technological competition for military, civilian, and symbolic purposes requires full development of the best potential scientific talent of our population. (*Staff Report on Employment, Growth, and Price Levels*, United States Government Printing Office, Washington, D. C., 1959, pp. 55-56.)

This was the first sign in many a long day of an alliance between the economic planner and the educator. But it is only the first sign, and one may doubt, therefore, if the United States is a good example for the studies that lie ahead.

Let us rather explore two societies that seem helpful in charting the course. They may seem at first to be dramatically in contrast. The first is Greece; the second is Nigeria. Modern Greece inherits a tradition of artistic, literary and scientific culture which has formed not only its own society, but the whole of the Western world, and some part of the Eastern as well. Nigeria's history is far less known, and its economic and political independence is of very recent origin. The two nations seem far apart in the mid-twentieth century, and the reason for their choice in this paper is personal and accidental. I happen to have made a study of both, in the case of Greece through the request of the United States Government, in the case of Nigeria through service on an educational commission appointed by the Federal Government of that new and powerful nation. As I tried to understand the reasons which explained the state of the secondary schools in Greece and Nigeria in 1960, and tried to propose plans for the future, I found myself looking at economic rather than cultural issues. Because of personal training and interests, this effort was more the result of duty than of pleasure.

Economics is still a hard and gloomy science, and not easy for the amateur who finds the relation of education to the arts and letters a more joyful task. But this is the century of hard choices, and reality must point the way.

The lessons of Greece and Nigeria differ, yet both spring from the economic source. While in the mood of the classics, let

us call them the lessons of Scylla and Charybdis. In the case of both Greece and Nigeria, the secondary schools have sprung from a verbal and mathematical tradition. Education in British Africa is still the grandson of Western civilization —though a grandson often in rebellion from both father and grandfather—. The graduate of the secondary school feels himself to be above the vulgarities of manual labor. The graduates of the schools of both lands expect either to begin at once in work which calls for mental rather than physical work, or to enter the university. This belief is the inheritance they share. With the curious obstinacy of tradition, the more the realities of jobs and economic forces raise questions about the fitness of the graduate for new tasks, the more resistance to change in the secondary schools is to be found. In Greece, far more secondary school graduates are produced than can be absorbed into the white-collar occupations or into the universities. The result is an unemployed, or half employed. "intellectual" group, largely in the cities, which forms an unstable element in the society. Reality and expectation have parted company, and disillusion may take their place. Save for economic aid from overseas, the situation might well be intolerable. As it is, it is only barely tolerable. One may doubt whether the spread of secondary education to a higher proportion of youth would benefit either the individual or the society as long as secondary educations is valued largely for social and financial effects which do not seem linked to economic reality. Changes in curriculum unrelated to the market for jobs or to the hopes of the students can have but little effect.

It may well be that changes in foreign policy that affect the rate of economic growth under such circumstances have more effect on the schools than all the plans and prayers of the educator. Consider, for example, the matter of the roads built for military purposes in Greece in the late 1940's and in the 1950's. The existence of these roads has made possible centralized high schools and, if the society wishes to do so, a totally new kind of secondary school. The major influence on the school may well be the result of military and diplomatic factors, which affect both the economy and the kinds of secondary schools that can be established.

In Nigeria, the situation is very different. Such military and diplomatic factors are not yet important. Even under the present state of the economy there is a serious shortage of skilled personnel needed to handle the affairs of a complicated economy. A large number of expatriates are now required to man both gobernment and private offices. A secondary school graduate is still the holder of a ticket to a better way of life.

The key to understanding the role of the schools is, in both nations, the job market and the expectation of the secondary school graduate. But the economic facts differ at present: in the case of Greece, the Scylla of an unemployed intellectual class must be avoided on the one side, with the danger of political unrest, and in Nigeria the Charybdis of too few trained personnel for a growing economy must be avoided on the other, with the danger of economic stagnation.

If one looked at this problem only with the eyes of the economist, the solution might seem simple. To avoid Scylla, reduce the investment in a literary secondary education; to avoid Charybdis, increase investment in secondary education, with an emphasis on applied science and agriculture. But as we all know educational policy is not that simple. The secondary schools are not only the arm of the economic needs of a society: they are the carriers of a cultural tradition and the avenue of individual fulfillment as well. For a society to think only in economic terms may lead to a particularly degrading kind of totalitarianism, with the individual mind and spirit lost in a table of statistics. Quantity may swallow up quality. The sculptor of Athens or Benin may no longer appear.

Yet let us suppose that we all agree on these facts and these interpretations. Does this agreement help us to decide precisely what should be done with the secondary schools in these two nations? Probably not, for we still have before us the obstinate facts of the expectations of adolescent youth (and their parents) about the style of life that should follow secondary schooling, and the equally obstinate fact that the economy of neither country is able now to support the expense of secondary education for all. Both societies are forced to make hard choices, as indeed are all societies today.

The issue can be avoided, of course, by leaving the matter up to parents. This usually has the effect of secondary education being largely limited to those whose wealth permits them to provide their children a chance. This solution obviously makes economic growth less likely. Or the society can simply decide that it does not wish to use the results of modern science and production, which would mean that secondary schooling would be far less necessary. But I am unable to think of a society that has consciously chosen this route of simplicity, and it is hard to conceive of one.

We are left, then, with the need for economic decision. Some portion of the national economy must be assigned to the support of the secondary schools, and *the extent of that portion will bear an inevitable relation to the growth of the economy*. If it is small relatively, the economy in time will show only a small growth. If it is very large, the economy may not have enough resources left to provide other essential needs of a growing society: capital for new industry, medical care and the like.

In reaching a decision, several factors should be borne in mind. The first is that the problem differs from society to society in relation to their stages of development. The major difference between Greece and Nigeria is that the latter is so short of trained manpower (which, of course, must be calculated as a part of the national wealth) that rapid economic growth can not be achieved without international aid, largely in the form of teachers to expand the secondary schools. No such need exists in Greece, or Italy for that matter. To speak of the need for secondary education as applying equally at all times in all societies seem, therefore, a dangerous mistake.

The second point that deserves attention is the implication that education, in economic terms, is a factor in both investment and consumption. If its value is seen only as consumption, then its importance will be small in the eyes of the society. If education, on the other hand, is seen as the essential ingredient that makes economic growth possible, then education rises to the top of the list of priorities. This point, of course, is scarcely novel to the educator, but educators do not seem to have had much success in the past in persuading the economists of its truth. For-

tunately the situation is changing, largely because of economic studies of underdeveloped countries. The Princeton economist Frederick Harbison, who prepared an important chapter in the Ashby Committee report on Nigerian education (which is itself significantly entitled "Investment in Education"), wrote:

> In order to achieve a rate of growth in the next decade equivalent to that of the past, certain «inputs» of capital and high-level manpower are required. The targets set forth in this report represent the *probable minimum «inputs» of high-level manpower* required to permit a rate of economic growth in the next decade equivalent to that in the ten years before independence. If the future rate of growth is greater than the past, then these targets are certainly too low. If the future growth rate is less than in the past then the targets may be too high. If the future rate economy is unable to achieve the degree of high-level human resource accumulation as represented in general by these targets, then it may have to settle for a more modest rate of economic development. Likewise, capital cannot be productively employed in Nigeria to promote economic growth unless at the same time the required high-level manpower is forthcoming. (*Investment in Education,* Federal Ministry of Education, Nigeria, 1960, p. 53.)

This analysis speaks of hig level manpower, which is interpreted to mean the result of a secondary education or higher. Whether the same case can properly be made for elementary education is far less clear, though obviously secondary education is impossible without the earlier school years. In any case, the main issue is plain: planning secondary education is a part of planning the growth of the economy, and should be considered as an investment for a more rapid rate of economic expansion.

From this line of reasoning one may draw a political conclusion. For many years the advocates of more and more education have regarded the economic planner as a kind of natural enemy who seems always to be denying the resources needed for more schools. To the economic planner the educator must have seemed an irresponsible and soft-headed enthusiast for a

worthy but partly luxurious cause. If the interpretation stated above is correct, these attitudes must be given up. The educator and the economist are not opposed but are rather natural allies. In preparing personnel in both education and economics this relationship should be made clear. This is a task for both government and universities and has very specific implications for colleges of education. Economics is no longer only a subject to be taught to pupils in schools; it becomes itself a central subject in the study of education.

If the needs of a society for secondary education vary with time and circumstance, it is possible that the content of that secondary schooling will also have to vary. We often debate matters of the curriculum of the secondary schools as if our words were equally relevant everywhere. On the basis of studies in Greece and Nigeria, one may venture to doubt the truth of this notion. Consider the situation in Nigeria for a moment, and compare it with what might have been written about Greece. The words are taken from the Ashby report on Nigeria:

> To approach our task, therefore, we have to think of Nigeria in 1980: a nation of some 50 million people, with industries, oil, and a well developed agriculture; intimately associated with other free African countries on either side of its borders; a voice to be listened to in the Christian and the Moslem worlds; with its traditions in art preserved and fostered and with the beginnings of its own literature; a nation which is taking its place in a technological civilization, with its own airways, its organs of mass-communication, its research institutes.
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> Millions of the people who will live in this Nigeria of 1980 are already born. Under the present educational system more than half of them will never go to school. Like people elsewhere, their talents will vary from dullness to genius. Somehow, before 1980, as many talented children as possible must be discovered and educated if this vision of Nigeria is to be turned into reality. This is a stupendous undertaking. It will cost large sums of money. The Nigerian people will have to forgo other things they want so that every available penny is invested

> in education. Even this will not be enough. Countries outside Nigeria will have to be enlisted to help with men and money. Nigerian education must for a time become an international enterprise. (*Ibid.*, p. 3.)

It is not to be assumed, however, that one type of school will teach wholly different subjects than another. History and literature, mathematics and science are the same wherever one goes, or should be, and form the basis of what we call civilization and of our social and economic institutions. But they may well vary in emphasis and in the extent to which conscious effort is made to apply them to social needs at a given point in time. Nigerian agriculture is a very different matter from the Greek. The expectations of North American children from secondary schooling are far different from either of these two nations. One may properly be suspicious of any proposals which do not take economic and social factors into account, just as an economist might be suspicious of proposals that leave out the nature of the market or the possibilities of capital investment.

Yet there seems in both the public and the professional mind to be a feeling of inherent conflict between the statement that the content of secondary education must include the familiar academic disciplines of language and mathematics, history and science, and the statement that emphasis in the teaching of these subjects should vary from school to school and from society to society. The two statements are sensed to be antithetical. Many believe that any intrusion of current social or economic issues into the program of the school will inevitably lead to a weakening of the fundamental disciplines of the mind, and in due course to the collapse of good standards. This conclusion is usually reached as the basis of historical interpretation, but it is for this very reason that one may question its relevance and its accuracy. In reaching the judgment, it would seem, it is assumed that the role in the society of the secondary school is the same, regardless of time and place. But this is precisely the point on which economic analysis raises doubts, and on which analysis of pupil attitudes suggests that there are, in fact, great variations in roles. The secondary schools are not only institutions in which teachers

teach; they are also (to borrow Whitehead's phrase) "climates of thought" in which pupils learn. They learn attitudes and expectations as well as subjects, and what they learn of a subject depends on these attitudes and expectations. In planning the schools the society must take into account the relation of this climate of thought to the economy and to its needs for social development. In Nigeria it is necessary to make agriculture a far more respectable occupation in the mind of the secondary school student. In Greece, industry and commerce need trained recruits. To pretend that the teacher should be isolated from these facts is to be naive both in economics and in sociology, and the educators runs this risk at his peril.

The secondary school is not the same institution everywhere and at all times, nor should it be. Keeping firm hold on the subjects with the widest applicability, it must be prepared to use them in ways that fit the social setting. Where industry and government are able to provide in a separate setting the specific training for some skills, and the students are aware of this fact, the task of the secondary school is narrowed. In the long run, such a narrowing seems desirable, for it is not wise to demand too much of a single institution in a complex society. But in the march to complexity, the schools will often have to assume many duties and must be prepared to do so.

The decision on what these roles shall be at any point in time is not that of the educator alone. In partnership with the economic planner, and guided by the student of social and political developments, he must play his part in the teamwork of social change. The separation of the educator from these natural allies, because of narrow training and professional isolation in recent times, has not prepared him for such a partnership. A major effort to adjust their thinking is needed both by men and women now in positions of responsibility in education and in social and economic planning, and in programs to prepare future leaders.

From these considerations of factors affecting "secondary education in societies undergoing rapid social changes", therefore, one conclusion stands out sharply: the need for changes in training and the need for retraining. The University of Puerto

Rico has earned just repute for its courage in facing hard problems and resolving them. May it once again take the lead in this area, for which it seems so well fitted by experience and skill.