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National Development Through Social Progress

THE ROLE OF EDUCATION

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PREFACE

The present study is a continuation of the author's inquiry into the conceptual problems of national development as initially presented in "Education and the Development of Human Technology."* It is based on a paper prepared by the author as background for a Consultant Seminar on Human Resources Development in August 1962. The purpose of both publications is to encourage an objective and systematic evaluation of the contribution of education to political, economic, and social progress; and to emphasize the extent to which the planning of educational development can be effectively used to promote overall development.

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Introduction

Since the end of World War II, the United States has supported through its foreign assistance programs many projects intended to promote economic development in less developed and war-torn countries. During these years considerable evolution in U.S. foreign assistance technology has taken place. The extent to which present policy reflects change in the concepts of the nature of the task confronting the United States in implementing successful foreign assistance programs is indicated in the Act for International Development of 1961. It is significant that the authorizing act for the present U.S. assistance programs specifies the promotion of social as well as economic development among its major objectives:

Chapter 1, Section 102. . . . It is, therefore, the policy of the United States to continue to make available to other free countries and people, upon request, assistance of such nature and in such amounts as the United States deems advisable and as may be effectively used by free countries and peoples to help them maintain their freedom. Assistance shall be based upon sound plans and programs; be directed toward the social as well as economic aspects of economic development; be responsive to the efforts of the recipient countries to mobilize their own resources and help themselves; be cognizant of the external and internal pressures which hamper their growth; and should emphasize long-range development assistance as the primary instrument of such growth.

Chapter 2, Section 211. (a) The President is authorized to furnish assistance on such terms and conditions as he may determine in order to promote the economic development of less developed friendly countries and areas, with emphasis upon assisting the development of human resources through such means as programs of technical cooperation and development. In so doing, the President shall take into account (1) whether the activity gives reasonable promise of contributing to the development of educational or other institutions and programs directed toward social progress . . . (4) the extent to which the recipient country is showing a responsiveness to the vital economic, political, and social concerns of its people, and demonstrating a clear determination to take effective self-help measures and a willingness to pay a fair share of the cost of programs under this title, . . .

(b) In countries and areas which are in the earlier stages of economic development, programs of development of education and human resources through such means as technical cooperation shall be emphasized, and the furnishing of capital facilities for purposes other than the development of education and human resources shall be given a lower priority until the requisite knowledge and skills have been developed.

Within the Department of State, the Agency for International Development (A.I.D.) is responsible for the administration of U.S. foreign assistance programs. However, A.I.D. must rely upon the human and technological resources of the American educational community to execute programs of assistance to education. The success of American educational assistance programs will depend a great deal upon the adequacy of these resources and upon the efficiency with which they can be utilized.

Comparative educators, because of their professional concern with the processes, content, structure, and overall environment of foreign educational systems, should exert leadership in equipping American education to perform those tasks which the act specifies and implies for education. There is an increasing awareness of the nature and magnitude of essentially noneconomic facets of underdevelopment. There is a growing body of literature which attaches more and more importance to the removal or modification of "roadblock" institutions which impede social and economic progress, and which often condemn vast numbers of people to continue living in a state of relative poverty and ignorance. Traditional attitudes and patterns of behavior, outdated and inflexible institutions, and apathetic populations ruled by anachronistic, shortsighted, and self-seeking oligarchies are obstacles to development which may be more formidable than economic problems.

However, all traditional attitudes and patterns of behavior are not obstacles to economic and social progress. How may it be determined which are obstacles, or more selectively, which present the most serious obstacles? How does one identify outdated and inflexible institutions? Are they to be found only in less developed countries? Is it possible that Western civilization has developed some "cultural mental blocks" which restrict our ability to identify our own dysfunctional institutions? If a proposed economic development goal conflicts with widely accepted behavioral patterns, is it more important to the overall development of the society and the individuals therein that the patterns of behavior be changed or that the economic development goal be altered?

These are major policy questions in developing societies, and the leaders of such societies are in need of a conceptual framework which relates the processes of social and economic development to guide their decisions in such matters. Also, the extent to which the United States can concentrate its assistance effort narrowly enough to obtain results will depend upon its ability to identify key areas (or pressure points) where change is most needed and where the greatest "multiplier effect" can be achieved through limited aid support.

At present, the technology for bringing about necessary social and economic change, once the need for change has been identified, is far from adequate. Thus, the need to be able to identify institutions and behavioral patterns which most need to be changed, plus the need to decide from among countless alternatives which changes would most benefit the individual and the society, plus the need to determine a methodology for bringing about such change, are all dependent upon the development of a body of theory which clarifies many of the interrelationships between social and economic progress.

Many of the propositions which follow, as tentative, exploratory probing into that theoretical area, are so elementary that they scarcely need restating. Although they may tend to be oversimplified, they still may be suggestive of:

(1) useful concepts for defining and measuring social and economic progress; (2) a broad role for education in bringing about such progress; and (3) some of the specific conceptual and operational problems involved in inducing behavioral change across cultural boundaries.

Social, Economic, and Political Organization

Man, as an individual, has certain basic or survival needs which must be met in order for him to continue to exist. The need for food is an obvious example. However, once basic needs can be more than satisfied, an area of choice is opened in which the individual can satisfy these needs according to preferences or tastes. The exercise of preference results in behavior patterns which constitute a preferred mode of existence—a way of life. The preservation of norms and values essential to the continuation of a preferred way of life is a basic survival need for that particular mode of existence. An example of the basic nature of such "preferred" needs is the distraught housewife who insists, while standing in front of her closet full of clothes, that she cannot go to the theater because she has absolutely nothing to wear.

Groups, as well as individuals, have basic survival needs. For the present purposes, the following are suggested as aspects of the basic group needs which underlie social, economic, and political or organizational schemes.

1. *Decision-making.*—In order for a group to act as a unit, decisions must be made on behalf of the group which can bind its members to act. The larger the group, the greater the problem of involving all of its membership in the decision-making process. This gives rise to the need to have decisions made by some few members of the group. By making decisions which can commit the

group and its individual members to act, decision-making members exercise discretion over the behavior of other members. The overall mechanism through which group action is *consciously* directed, and decisions made on behalf of the group, is here referred to as political organization.

2. *Providing Material Requirements*—Food, shelter, and clothing for members of the group not producing such commodities for their own use, and weapons of defense are examples of basic subsistence requirements for groups. The organization of activity which provides for the production and distribution of goods and services in response to this need is economic organization.

3. *Regulating Individual Behavior*—In addition to the conscious direction of group activity through its political organization, there is a need to regulate individual behavior. Though individual behavior may be consciously guided through political institutions, such regulation reflects values and norms. These norms delineate the areas within which, and the means or methods by which, individual needs can be satisfied without excessive interference with the activities of others. The patterns of behavior which emerge from the application of these norms and values are referred to here as social organization.

In practice it is difficult to distinguish between social, political, and economic organizational schemes within a group because of the interaction and interplay between them. It is obvious that most if not all members of a group have roles in all three schemes. Stated another way, the same patterns of individual and group behavior are usually examined through special disciplinary microscopes—one to determine the economic significance of behavior, another to assess its political significance, and still another to estimate its social significance.

Groups develop derived needs, and as in the case with individuals, fulfillment of these derived needs becomes basic to the survival of a given level of sophistication. Stated in economic terms, the fulfillment of certain derived needs becomes essential to the preservation of a standard of living, or to an economic system. Examples of derived political needs are to be found in the process of selecting leaders. Positions of political leadership, as well as status positions in the social and economic hierarchies, are filled in accordance with subjectively determined preferences or qualifications. These qualifications vary in flexibility and may range from being born of the "right" parentage through one's ability to mobilize physical force on his own behalf. The need for leaders is basic to the decision-making process and hence to the very existence of a group; the need for certain kinds of leaders or for specific selection procedures is basic to the continued existence of a preferred way of conducting political affairs—in other words, to a political way of life.

Values, norms, and behavior standards are the substance of political ideologies, economic standards of living, and social ways of life. They are the factors which make it possible to classify groups as to type and to differentiate between groups of the same type. One set

of criteria may identify a group called a "family"; additional criteria can identify a Javanese family; an even broader set of factors will identify the family as a Moslem, Javanese family, etc. As a whole, these factors constitute the *id* of the group. Thus, with groups as with individuals, the satisfaction of preferred needs becomes basic to the establishment and preservation of identity.

If the preceding argumentation is reasonably correct, efforts to raise the level of economic sophistication of a nation seem doomed to failure until the social, economic, and political processes can meet the basic subsistence needs for the new level of sophistication. This gives rise to the all-important question, How does one identify those needs which are in fact basic to a level of economic sophistication? If and when they can be identified, how does one proceed to bring about the changes in norms and values and, through them, behavior patterns to make the new way of life possible? In other words, how does a group consciously change its identity? The successful solution of most of the problems in promoting economic development may depend upon the ability to answer these questions.

Status: Reward for Change or Conformity?

In the discussion that follows, the terms *power* and *power status* have been selected to convey the distinction between contribution and reward. *Power* is a measure of the individual's contribution and/or his capacity and willingness to contribute to the general welfare of the group. It is a description of capability based on the possession of specific skills, knowledge, competence, genius, stamina, etc. *Power status* is group recognition of individual contributions. The power status structure of a society is in a sense a measure of that society's capacity to recognize and reward individual contributions to its wellbeing. In an ideal society, power status would be the reward for achieving power, where the former is proportionate to the latter.

Although power status is essentially a nonmaterial reward, it influences material rewards. A group can deprive certain of its members of their proportionate share of material rewards through taxation, expropriation, and other means unless those members have sufficient power status to prevent it. Thus, the power status *vs.* power concept emphasizes group recognition of the individual's right to a reward proportionate to the significance of his contribution

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as opposed to the capacity of the individual to contribute, with or without recognition.

Another facet of the power/power status formulation has to do with the distinction between subjective fact and objective fact. Societies and their components behave largely in accordance with subjective fact; i.e., what society accepts as being true, valid, or "good." These social "truths" are related to the group identity as described earlier. However, the progress and development experienced by a society over the long run will be determined by the extent to which subjective fact as recognized within the society corresponds to the objective facts of the environment in which the society must exist.

Power, as herein defined, derives largely from behavior in accordance with, or making use of, objective fact; power status derives from behavior in accordance with subjective fact as recognized by the group. It should be pointed out that the use of objective fact does not necessarily imply recognition or understanding of it. The extent to which a group demonstrates flexibility in recognizing and rewarding power is in a sense a measure of its receptivity to change and its willingness to constantly reexamine subjective fact. It may thus be a measure of its capacity to establish a new identity.

Two aspects of the conferring of power status or rewards within a group are of particular interest: (1) The extent to which reward is based upon ascriptive criteria such as race and parentage, as opposed to achievement and performance criteria; and (2) the extent to which the knowledge and training essential to meet achievement and performance criteria are generally available to members of the group. The latter brings up the subject of education and educational opportunity.

Education: Key To Achieving Power Status?

The Act for International Development of 1961 assigns high priority to technical assistance in education to promote *economic* development, based on the assumption that education is a key to *power*, as the latter term has already been defined. It is assumed that by acquiring new skills and concepts, the economic power of the individual and the nation will be enhanced.

The use of technical assistance in education to promote *social* progress implies that education is the key to *power status*. The traditional attitudes and patterns of behavior, outdated and inflexible institutions, and self-seeking and shortsighted oligarchies cited earlier are power status structures and bodies of supporting subjective fact.

The progressive forces which often challenge these structures are members struggling to achieve power status rather than power. Such struggles are evidence of a society's resistance to conferring status on those who do or can contribute to progress and the general welfare in ways not in conformity with the "basic tenets" of the system.

The introduction of new knowledge, skills, and technology into a society may produce power and thus enhance a nation's potential to develop. Silas Bent McKinley [1] theorized that military weapons technology was the key to power in a society, and that conscript armies of citizen soldiers were the key to the development of democracy. He attached significance to the gap or differential between the military prowess of the rulers that could be exercised freely on the ruled, and the military prowess that the ruled could use against the rulers.

The weapons of the feudal nobility were far superior to any weapons their subjects were able to use against them. Thus, the subjective, force-oriented criteria which determined power status in a feudal society promoted a relative power status of lord and subject which was in reasonable accordance with objective fact. However, when the musket and rifle were placed in the hands of the foot soldier, he had a weapon which was more nearly equal to any weapon which the rulers might use against him. As conscript armies became increasingly necessary and more and more citizens entered military service, the power of the ruled was increased and pressure was exerted for adjustments in the power status structure of many societies. The revolutions of the 18th and 19th centuries brought about such changes in some countries.

Possibly the key element in the process briefly described above was not the nature of the weapons, *but the existence of the opportunity to be trained in their use.* Then, as now, *power or power status was available to those who had access to the training which made either possible.*

McKinley focused on the field of military science technology where substantially increased power can be directly and dramatically utilized to improve one's power status. Although similar developments can be detected in other fields, the eventual achievement of power status often took place after a more protracted period of challenging the status quo. The Industrial Revolution increased the demand for laborers trained to perform increasingly complex tasks, and clerical and management personnel were needed to coordinate the more complicated modes of production. These developments further narrowed the intellectual gap and gave increased power to members of the labor force

[1] *Democracy and Military Power.* New York: The Vanguard Press, 1934, revised 1941. 350 p.

which, after many years of strife, was rewarded by increased power status for those who produced wealth in relation to those who owned wealth.

Thus far, the discussion has attempted to suggest a basis for considering training as a change-inducing factor in a society. No attempt has been made to show how change has been, or might have been, induced in a planned, systematic fashion. Examples used have dealt principally with training, or the skill-imparting aspect of education, as being the agent for increasing a society's power potential. If training can increase the power of individuals in a society, can education prepare the way for their increased power status?

Education and Behavioral Change

Based upon the preceding argumentation, three aspects of overall development are proposed as crucial:

1. *Conceptual*—In order to endure and progress over a long period of time, a society must have the capacity to examine "subjective fact" and develop new concepts which enable it more effectively to cope with its major internal and environmental problems.

2. *Institutional and Organisational*—In order to utilize new concepts developed through the examination and reexamination of subjective fact, the society must have the capacity and the willingness to reward its active members with increased power status based upon new criteria which may emerge.

3. *Educational*—The individual's ability to achieve power status is dependent upon the degree of accessibility and attainability of the qualifications for achieving it. To the extent that these qualifications can be met through the educational process, educational opportunity is a measure of the openness of a society. Both the nature of the qualifications and the opportunity to meet them are important. Although opportunity may exist, the qualifications may be unrealistic in terms of the needs of the society. This points to another role of education which refers back to the first point of this cycle, that of examining subjective fact. It is clear that these three phenomena are interdependent and that the term "educational" in fact may be a misnomer because the educational process is involved in all three.

The role of education in effecting behavioral change is a topic of such immense proportions that care must be taken to specify those aspects which are addressed here. In an attempt to examine the processes of economic and social development from a technical assistance point of view, emphasis must be given to education's role in changing patterns of behavior in such ways as to maximize the economic and social development potential of a society. Leaving aside for the moment what is perhaps the most important question to be answered, "How and by whom is it to be decided what changes are

necessary," the problem of systematically inducing behavioral change is most challenging.

It has been suggested earlier that behavioral change can only be effected by the modification of the norms and values which support and reinforce the behavior patterns to be changed. This proposition supported and developed by Kenneth E. Boulding.[2] Outlining what "might well be called an organic theory of knowledge," [3] Boulding suggests that human behavior is based on a "throughput" of information rather than on conditioned responses. He envisages human behavior as resulting from informational and sensually perceived inputs which are "filtered through" a grid of values, norms, and factual knowledge. The behavioral response to a given input or stimulus is determined by the filters or images through which the input must pass. In order to change the behavior resulting from a particular stimulus, one or more of the images which affect the behavior must be altered or new pertinent images created.

Boulding points out that it is the ability to communicate through time and space which is the greatest differentiating factor between man and other life forms. This communication makes possible the accumulation and pyramiding of knowledge. Human beings can act as parts of an organization because communications makes possible a structure of roles. "The cellular units of organization are not men, but, as it were, parts of men, acting in a certain role. Because of this, each man is able to participate in many organizations in different roles and in different parts of his time and activity." [4]

Although, according to Boulding, a group cannot have an image in the same sense as an individual, there is such a thing as a group image. It is comprised of those aspects of an individual image or constellation of images which are perceived by large numbers of individual members in a comparable manner. Using Boulding's terminology, group images are the substance of subjective fact. The evaluation and modification of subjective fact is a process of changing images. As new technology becomes available, segments of a society may begin to utilize it in such a way as to develop positions of power. The society's capability to make optimum use of the new technology will be determined to a great extent by its ability to create group images which result in enhanced power status for individuals and organizations, contributing to social and economic progress through utilization of the new technology.

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[2] *The Image: Knowledge in Life and Society.* Ann Arbor, Mich.: The University of Michigan Press, 1956.
[3] *Ibid.*, p. 16.
[4] *Ibid.*, p. 27.

Historical examples of evolutionary progress from power to power status are not difficult to find. The rise of the industrialists in Europe is an excellent example. The financial power of the industrialists existed for quite some time before the rulers of the countries recognized that wars were becoming increasingly expensive and the landed aristocracy was not capable of providing the necessary capital to defend the nation and its interests. Increased power status for the industrialists based upon their capacity to provide needed resources was the result. The recognition of the contribution of labor in most industrial societies had a similar history. However, before the increased power status of either laborers or industrialists could become a fact, many pertinent images were altered through time—value images concerning usury and the proper uses of wealth as well as those which determined the value of the services which produced wealth for others. Through time, these changes usually evolve unless a society is excessively ingrown and unresponsive to a changing environment.

However, the question of the moment is not whether necessary change will eventually take place, but whether it is possible to bring about change at an accelerated pace along predetermined lines.

To what extent are individual images and, through them, group images susceptible to being changed through an organized process—particularly through a system of education? Edward T. Hall in his book, *The Silent Language*,[5] presents an analysis of the learning process which appears significant in the present context. Hall constructs a "major triad" which consists of three basic types of learning—formal, informal, and technical.

Hall's formal process of learning is achieved largely through a trial-and-error method which usually recognizes only two alternatives—right and wrong. An attempt is made, it is correct and reinforced, or it is incorrect and hence corrected. Although the subject matter learned through such a method would seem to be largely value oriented, the learning of language also makes use of this method. In general, a word can be spelled only correctly or incorrectly, a verb form is either right or wrong. Other alternatives seldom exist.

Informal learning depends upon models to be copied. The individual attempting to learn by this process is seldom confronted by an arbitrary right or wrong choice, but must choose from a variety of models, a number of which may be desirable and others which may be inappropriate. One of the factors which usually identifies subject matter learned by the informal process, according to Hall, is that the

[5] Greenwich, Conn.: Fawcett Publications, Inc., 1959.

content can seldom be described in any detailed, systematic fashion. Examples of the types of images or groups of images (to borrow Boulding's terminology) which are learned informally are proper masculine behavior, or proper conduct for the young, unattached lady in various boy-girl situations. In the example given earlier, the housewife's awareness of the inappropriateness of her attire for the theater was probably the result of an informal learning process.

Technical learning is best distinguished by its reliance upon the reasoning process and "is characterized by the fact that it is fully conscious behavior. . . . The very essence of the technical is that it is on the highest level of consciousness."[6] "Technical learning . . . is usually transmitted in explicit terms from the teacher to the student, either orally or in writing."[7]

Hall cautions his readers that "in real life one finds a little of all three [types of learning] in almost any learning situation. One type, however, will always dominate."[8]

In societies where formal learning predominates, people are more likely to be influenced by the past than by the present or future, and they tenaciously resist change. Where informal learning is dominant, the resistance to change is high and specific images are elusive and difficult to identify because of the out-of-awareness nature of informal learning. To the extent that technical learning is emphasized, a society's receptivity to change should be enhanced because technical learning is supposed to be based to a great extent upon inquiry, logic and experimentation. However, learning may be fully conscious and transmitted in explicit terms from the teacher to the student *and still be more formal than technical*, using Hall's terminology. Educational systems which rely heavily upon rote learing processes are a case in point. It is also clear that informal learning plays a significant role in the school. Behavior models set by the teacher and other students may influence the individual as much as the technical learning process.

Hall's major triad emphasizes the importance of the process of learning. This brings up an interesting question: To what extent are images learned through one learning process susceptible to change through another learning process? A great deal may depend upon the extent to which the technical learning process can be used to alter images acquired through formal and informal learning. Hall hints that some change can be effected by the use of the technical learning process in destroying or altering technically acquired images

[6] *Ibid.*, p. 74.
[7] *Ibid.*, p. 71–72.
[8] *Ibid.*, p. 72.

which serve as props for formal and informal images.[9] It would also seem that teacher-training programs should emphasize the importance of the teacher's way of life as a means of influencing students through the informal learning process.

Further research and experimentation are needed to lend precision to teaching methods designed to remove stubborn, formally acquired roadblock images. One area of inquiry which might prove highly productive in this sense would be an examination of techniques used or the learning processes involved in securing religious converts. For centuries, missionaries have used education in often hostile environments to bring about significant changes in local value images.

In order to achieve economic progress, a society must have goals which can be satisfied through economic processes, and it must further recognize and reward the conduct necessary to achieve these goals.

The concept of sectors in economies, where power status of the individual is largely achievement based, is foreign to many of the currently less-developed countries. In fact, many such countries have virtually no hierarchy of power status in their economic organizational schemes. It is interesting to observe that in most of the less-developed countries in Asia, for example, the economy is significantly lacking in nationals who enjoy any position of power status based upon economic achievement. If one could eliminate from consideration the nonnational merchants and businessmen, such as the oversea Chinese, Indians, and Arabs as well as the foreign owned, managed, and/or operated businesses, one would find virtually no activity above the small business and small enterprise level. Some countries have sought to drive out many of the foreigners by nationalizing enterprises. The nationals taking over these enterprises are more often than not politicians and bureaucrats. Thus, the power status positions on the economic achievement ladder become a reward for political, not economic, achievement.

This situation exists in spite of the fact that most of these same countries have set as major policy goals the realization of very rapid rates of economic growth. It is difficult to perceive how this can be achieved without society recognizing and rewarding economic performance which is essential to achieve such growth.

Similar problems exist even in traditional areas, such as agriculture, where educational opportunity is generally considered as an opportunity to avoid continuing to work as a farmer and a member of the rural community: It is, in fact, a means for escaping what is considered an unpleasant life. The public image of the farmer as an illiterate buried to his knees in cow dung is not one which will result in

[9] *Ibid.*, p. 87–91.

motivating young members of the society to choose agriculture as their vocation as long as there are other alternatives, however imaginary they might be. Nor are they particularly inspired to continue living in communities made up largely of such "low status" individuals where the traditional communal matrix smothers the innovator and the status seeker.

Technical Assistance in Education: Planning and Problems

The Act for International Development of 1961 is a significant document for the principal reason that it permits and encourages technical assistance to promote social progress. Quite apart from, but in no way diminishing, the essentially noneconomic benefits to be derived from social development, the economic benefits can be significant. In fact, successful technical assistance in the field of social development may be required before economic progress can be achieved on a meaningful scale.

The act assigns a high priority to education in the technical assistance program. Furthermore, it emphasizes the importance of planning national development. The pedestal upon which the whole planning process rests is the ability of the planners to predict and/or anticipate the ways in which individuals and groups within the society will act, react, and interact to a proposed set of parameter values and/or variables. This capability requires that the planner be able to identify group images which influence growth-inhibiting behavior.

In some societies, the planning process teeters precariously on a tiny pedestal of predictability. Where this is true, the development plan may prove to be little more than an academic exercise, unless it includes programs designed to instill the motivations required to permit and encourage individual and group participation in the activities essential to realize planned objectives.

One factor to be predicted is the magnitude of investment in education, or the magnitude of educational effort necessary to achieve a given goal. This calls for a realistic assessment of threshold levels, particularly in terms of the number of persons which must be reached through the educational process in order to alter public images. Before group images can be changed, a sufficient number of individual images must be altered in a comparable manner.

Research in three related areas is needed before such threshold levels can be determined with sufficient precision: (1) The extent to which images gained by the technical learning process in an educational institution are communicated to other members of the group who are

not educated in such institutions; (2) studies which indicate any differences in the above process when (*a*) the subject image reinforces an accepted group image, (*b*) the subject image conflicts with an accepted group image, and (*c*) there is no group image to be reinforced by, or in conflict with, the subject image; and (3) studies which indicate the proportion of group membership which must share an image before it becomes an effective group image. Related to the last area of suggested research would be inquiries seeking to determine whether threshold levels might not differ from image to image, i.e., whether certain public images can be changed by reaching fewer people than in the case of others. There may be certain characteristics of group images which are indicative of the percentage of individual images which must be altered in order to achieve effective behavioral change.

Efforts should also be made to identify, if and where possible, key subgroups or segments of groups which must be reached before attempts to change public images are effective. One should not exclude the possibility that substantial change can be effected by concentrating on such groups. The channels for the diffusion of education within the society may be important in some cases. For example, attempts by Anderson and Bowman [10] to discover the correlation between literacy and levels of per capita income show that—

> . . . only countries with 90 percent literacy or better had 1955 per capita incomes of over $500, and, where literacy rates were under 30 percent, incomes were under $200. However, countries with incomes under $100 had literacy rates ranging up to 60 percent and those with incomes between $100 and $200 included countries with literacy as high as 70 to 80 percent. Moreover, in the 30 to 70 percent literacy range, there was virtually no correlation between literacy and income.

Although it is dangerous to infer too much comparability between literacy and education, the above example can serve to illustrate the importance of dispersal patterns. Comparative studies might show that until target groups or subgroups of strategic importance in a society are reached, increased income does not result from the teaching of literacy. This may be increasingly important when one considers that as key groups become literate, their images become more susceptible to alteration through a technical learning process. Under such circumstances, realistic educational planning should make every effort to reach such strategic groups first rather than follow traditional dispersal patterns which might reach them only after 80 or 90 percent of the population has received some education or training.

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[10] Mary Jean Bowman and C. Arnold Anderson. "The Role of Education in Development," in *Development of the Emerging Countries.* Washington: The Brookings Institution, 1962. p. 159.

The degree of educational opportunity existing at various levels of the educational system may also influence the process of changing public images. It may be that only after 80 or 90 percent of the total population have had some education do a significant number of key-group members have an opportunity to obtain enough education (or education at a sufficiently high level) to result in a significant change in group images.

Summary

The foregoing has been an attempt to develop a theoretical framework which outlines some of the interrelationships between social, economic, and political development. Emphasized is the need for a less-developed country to change some of its behavior patterns in order to meet the basic needs of new ways of economic life. The image, particularly the group image, has been stressed because it plays a major role in determining behavioral responses to environmental and technological stimuli. Group images largely determine the social, political and economic rewards (herein referred to as power status) for members of the group. Planned economic goals are not likely to be realized until and unless the patterns of behavior which are necessary to achieve them are sanctioned and rewarded by society. The role of education in the development process, in addition to the imparting of skills and the introduction, development, and diffusion of new technology, is to develop a public image structure which will enable the society to make the most efficient use of the newly acquired skills and technology for meeting individual and group needs. Thus, the teaching of attitudes and values which has been all too often subsumed under "general and unmeasurable" social development goals of education is, in fact, an essential contribution to economic development.

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