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ABSTRACT

This paper speculates on difficulties in making American formal education an active force for conscious cultural change rather than a passive force for unconscious cultural stasis. Two questions central to discussing any educational system which purports to be a conscious force for cultural change are posed: Can a society conscious of its own cultural beliefs exist? Can this society deliberately change to a new cultural orientation? The assumption is made that these questions are answered positively and the author explores the difficulties that such a hypothetical society would have in using its formal educational system as a vehicle for cultural change. The impact of technology and of formal education on cultural change is developed. Alternative combinations of these conscious educational impacts are described. As ideal types, these serve to illustrate the major properties a future educational system serving as an active force for cultural change might exhibit.
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ALTERNATIVE FUTURES IN WHICH FORMAL EDUCATION
PLAYS A MAJOR ROLE IN CULTURAL CHANGE

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Introduction

This paper will speculate on difficulties in making American formal education an active force for conscious cultural change rather than a passive force for unconscious cultural stasis. Many futurists agree that an industrial society in which change in the culture is consciously determined by its members through formal education is more viable than a similar society in which change in the culture is driven blindly by technology. However, the concept of a society which is conscious of its cultural matrix and which designs institutions to alter this matrix in a deliberate manner is very unusual. Almost part of the definition of "culture" is the concept that persons within a particular culture have no knowledge of what the fundamental cultural assumptions are. Two questions central to discussing any educational system which purports to be a conscious force for cultural change are then:

Can a society conscious of its own cultural beliefs exist?

Can this society deliberately change to a new cultural orientation?

Frankly, we both wish that we could write a paper which answered these questions (which have puzzled anthropologists and students of human nature for a long time). Equally frankly, we cannot because we don't know the answers, and do not yet have enough anthropological background to write even a speculative paper on the subject. What our paper will do is to assume that the answer to both of these questions is "yes", and then to explore the difficulties that such a hypothetical society would have in using its formal educational system as a vehicle for cultural change. While this is a considerably less interesting question, it still is an important one -- many futurists (ourselves included) see education as a very powerful vehicle for shifting industrial civilization toward positive alternative futures, and yet believe that changing formal education to fill this new function will be very difficult.

First, some definitions: for the purposes of this analysis, "culture" will be defined as the collection of beliefs and attitudes held by a group of people. We will assume that the U.S. has a single culture composed of many subcultures. "Change" will be defined as any deviation exhibited from an observable trend operating to maintain generally accepted beliefs and attitudes.

The "formal educational system" will be defined as a publicly regulated organization which transfers information and skills as its primary function. To simplify this paper, we will consider only the formal educational system in the United States. This definition then includes the public schools and the media (organizations whose content is restricted by government sanctions), but not on-the-job training (which is not publicly regulated). This paper will focus primarily on those aspects of the United States' formal educational system which transfer cultural values and attitudes from one generation to the next.

The United States, England, most of Europe, and Japan are examples of countries which have "industrial" economies. While this paper will consider only the United States, many of the economic arguments presented will be grossly applicable to these other countries as well. "Technology" will be defined as any material extension of man's physical, cognitive, or perceptual capabilities.

Technology and Cultural Change

The exact role that technology does play in a society characterized by an industrial economy is disputed, but most futurists agree that it unconsciously influences cultural change, frequently to the detriment of the society. For example, the technology of the automobile has changed the United States' cultural orientation substantially:

As a transportation mode, the automobile has created the divergent subcultures of the central city and the surrounding suburbs.

As traveling bedrooms, cars have altered sexual habits among young people.

The automobile industry, as the first user of assembly-line production, has contributed to the depersonalization of work with corresponding changes in the attitudes of the American wage earner.

The internal combustion engine is one of the major sources of air pollution in America, and as such has helped to reinforce the current trend in American beliefs towards ecology and the systems approach.

Due to its huge sales volume, the automobile was the first technology to make possible vertical monopolies, which have grown into modern day conglomerates and have slowly changed American attitudes towards "big business."

None of these cultural changes which occurred as a consequence of the automobile were readily predictable. All of these changes were very destabilizing to the United States' economy, for technological discontinuities are not well tolerated by an industrial economy. Because of economic and cultural discontinuities such as these, many futurists have warned of the damages to societies that might result from continued uncontrolled technological development.

Education and Cultural Change

The influence of formal education on cultural dynamics in the United States has usually been less change-oriented than the influence of

technology. Primarily, this is because schools (and their equivalent):

accept "mainstream" cultural goals and values as the sole norms,

teach many skills which have or will become culturally obsolete, and

implicitly convey to the culture that its future is largely predetermined.

All three of these properties ultimately stem from the fact that America has almost always viewed formal education as a passive means of preserving the cultural heritage instead of as an active means of fostering cultural change. The former, passively-oriented viewpoint is unfortunate because formal education is a cultural change mechanism which can be used in a relatively conscious fashion.

Traditionally, education has lagged U.S. society in its cultural orientation, reflecting attitudes and beliefs twenty years or more behind the society's present cultural matrix. For example, the classroom organization which characterizes American schools today still reflects the needs of the America of the 1920's for laborers socialized to the demands of assembly-line production; students sit in alphabetical order in neat rows of desks, move from room to room when a bell rings, and speak only when called upon by the teacher. Most of these students will graduate to an economy centered around service industries and demanding widely different attitudes towards work than those just listed.

Resistance to change is not confined to education's cultural orientation; most attempts to introduce discontinuous change into formal education in the United States have met with failure. For example, in the years immediately following Sputnik, many scientists and educators in America put vast amounts of energy and money into improving science education in the public schools, but the results of all these efforts and resources have

been minimal. Resistance to any conscious educational change seems an intrinsic aspect of the current education/society system in America, and therefore the nature of this system must be understood before the difficulties of making education a conscious agent for cultural change can be discussed.

First, the culturally intended functions of the United States educational system must be delineated, since successes and failures in changing the educational system at present can only be comprehended within the context of its aims. Then, by discussing the actual effects of America's formal education in light of its intents, the present role formal education plays in cultural change can be understood.

The Cultural Functions Formal Education
is Intended to Perform

One list of intended educational functions in an industrial society has been compiled by Thomas Green.¹ Although it is not intended to be exhaustive, this list does include most of the major and traditionally discussed functions connected with formal education in the United States.

The formal educational system is supposed to train for occupations. The societal intent is that formal education will fulfill this occupational training in a passive manner. That is, education is not expected to create occupations which seem useful and train people to fill them, but rather to train for whatever jobs technology creates.

The formal educational system is supposed to screen for occupations. This is usually accomplished through a certification process. Once the standards for competence in a particular occupation are determined and made known to the society at large, the formal educational

system selects those people best able to meet those standards, trains them to meet the standards, and certifies that attainment. These people may then fill positions in that occupation.

The formal educational system is supposed to screen for further schooling. To accomplish this end the formal educational system selects out those individuals best able to meet the established standards for entry into advanced study, trains them for entry, and certifies their attainment of those entry standards.

The formal educational system is supposed to train for cultural roles other than occupations. For example, as the women's liberation movement in the United States has recently pointed out, the roles that males and females are expected to assume are very much in evidence in the norms and content of the mass media, schools, and other areas of formal education in the United States. These norms implicitly support the cultural roles and values of the society.

The formal educational system is supposed to train for the preservation of the status quo. Since the sole norms of the formal educational system are based on and support the existing cultural roles that the society requires, the educational system is clearly not intended to generate cultural change, but rather is intended to train for and support the society as it presently exists. For example, the economics of industrial societies function by keeping young people off the job market. Schools help to maintain the economic status quo in the United States by fulfilling this function. Similarly, the present sexual mores of U.S. society are maintained partly through education by regulating the knowledge and the values taught to the young.

As these five culturally intended functions illustrate, formal education is expected to serve as neither a force for cultural change nor a drag on technologically induced change. Education is intended to serve as a passive, reactive component in the society which both preserves the status quo and trains for new technologies once they are implemented. Thus, the intended functions of American education are ultimately paradoxical: education is not to lead the society forward, nor is education to hold the society back.

The Failure of Formal Education to Fulfill its Intended Cultural Functions

Perhaps because these functions are paradoxical, an excellent case can be made that, at present, in the United States, the intended long-term functions of formal education are almost completely unrealized. Formal education fails to train for occupations, for cultural roles, and for the preservation of the status quo because the skills and information that schools convey to accomplish these functions do not correspond to long-term societal realities. Given this, much of the screening for occupations that formal education performs is also useless, as many of the variables education uses to measure achievement are not valid indicators of long-term occupational skills. Only the function of screening for further schooling is rather pointlessly fulfilled (to the extent to which grades, recommendations, certificates of completion, and the like are accurate in predicting future grades, future recommendations, and future certificates).²

Formal education fails to train for occupations in three major respects:

Many courses now taught in the schools (solid geometry, Latin, introductory psychology) convey skills and information which apply only to fields that are at best already overloaded with practitioners, and at worst are societally obsolete.

Many skills which will certainly be valuable in the future (computer use, basic future studies, creative problem solving) are not taught by the formal educational system at all.

The schools teach that "work" is a mental process which requires punctuality, respect for authority, and applying pre-taught tools to find the "right" answer. Further, the schools convey to most pupils a hatred of formal learning that often represses growth and development in later life.

American formal education fails to train for cultural roles (marriage, family life, acquaintanceships) in three respects:

competition (rather than cooperation) is emphasized as the dominant mode of interpersonal interaction;

"controversial" subjects such as sex, drugs, racism, and increasing pressures on the nuclear family are ignored; and

affective skills are treated as much less important than cognitive accomplishment.

Formal education also fails to train for the preservation of the status quo. Some cultural norms are taught, others (unwittingly) undermined. For example, the steady increase in the number of years of schooling necessary for an individual to be certified for American occupations has ultimately been based on two assumptions, both of which reinforce the status quo:

young people must be kept off the job market to keep the economy functioning properly, and

the long-term future is predetermined, and hence students can be prepared for their future in great detail.

On the other hand, students who have been taught that the status quo is based on freedom and equality are often branded as revolutionaries when they attempt to implement these concepts in practice. Another illustration of the rejection of the status quo educational practices can unintentionally produce is the recent increase in drug use among middle class students. This may well have been due, in part, to the implementation, during the late 1950's of the "discovery" approach in science teaching, which urged students to investigate natural phenomena by designing and conducting their own experiments.

Formal education fails to screen for occupations, for two reasons. First, to the extent that formal education does not train for occupations, it cannot screen for occupations. Measuring student achievement in an obsolete occupation serves little purpose. Second, no major correlation between academic achievement in a given field and future notable contributions to that field has been demonstrated. Some correlation has been demonstrated between present grades and future grades (i.e. high grades in college are a fair predictor of high grades in graduate school), so formal education does seem to screen effectively -- if rather uselessly -- for further schooling.

The Actual Role of Formal Education in Cultural Change

Overall, as this discussion has shown, American formal education does not succeed in four of its five intended long-range functions. The following generalizations delineate the role that formal education actually plays in cultural change in the United States.

Formal education enhances occupational change by creating a population which is accustomed to formal schooling as a means of acquiring new skills; but retards occupational change by providing this population with largely outmoded occupational skills and attitudes and with a distaste for

further learning. Formal education also selectively screens its participants to reinforce these negative occupational attitudes.

Formal education enhances change in non-occupational cultural roles by not preparing the population to resist pressures that erode these roles, but retards change in cultural roles by defining a very limited range of acceptable cultural role-choices.

Formal education enhances change in the status quo by teaching some cultural hypocrisies (non-racism) as cultural goals; but retards change in the status quo by teaching mainstream cultural goals and values as the sole norms, by implicitly conveying that the cultural future is unalterably predetermined, and by keeping youthful workers out of the economy.

Obviously, these effects on cultural change are systemically inter-related: occupational change affects the status quo, which affects cultural roles, and so on. Any model which outlines the present impact of formal education on American cultural change must take these interrelations into account.

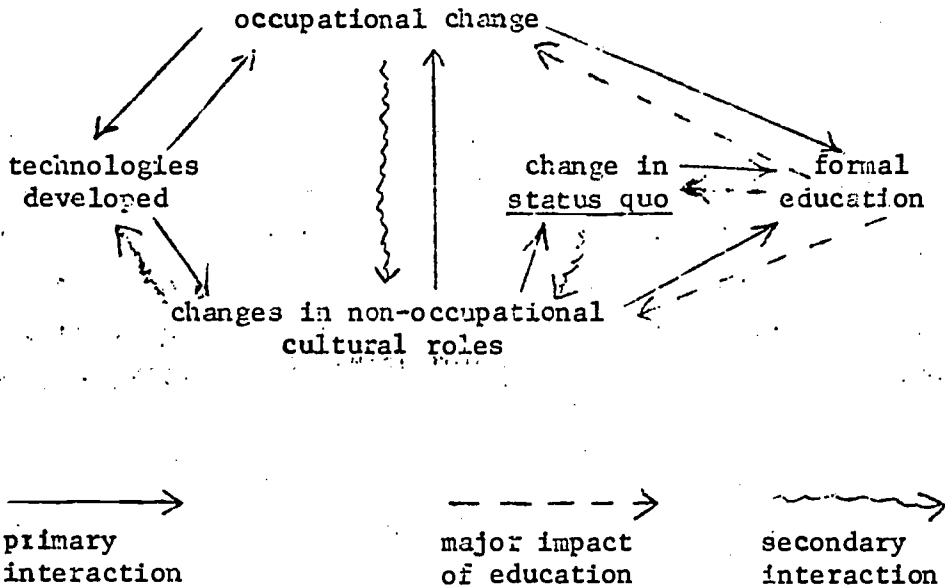
Any such model must also recognize that over time the American educational system tends to reinforce, through selective recruitment, its orientation towards cultural change. A feedback system exists:

students who have an attitude towards cultural change similar to their teachers' are rewarded by high marks and by encouragement to continue their academic work, and

prospective teachers are exclusively recruited from students who have completed a college education and have attained satisfactory marks. As a result, the prevalent attitude within American education towards cultural change tends to be reinforced from one generation of teachers to the next.

A Simple Model of the Present Impact of Formal Education on Cultural Change

A simple model of the interrelations between formal education and cultural change in America might look like this:



This model includes technology so that the impacts of technology and education on cultural change can be compared.

The forces within this model acting for cultural change are:

the population is not prepared to resist cultural role changes,

the population is accustomed to formal education as a means of acquiring new skills, and

the population is taught inadvertent contradictions to the status quo.

The forces within this model acting for cultural stasis are:

young people are kept off the job market;

the population is taught past-oriented occupational skills and attitudes, past oriented cultural roles, mainstream cultural goals and values, a predetermined cultural future; and

the population is given a hatred of learning that often persists into later life.

This model summarizes the present effects of formal education on cultural change in the United States. There are at least eight alternative combinations of impacts by which the educational system could consciously affect cultural change. The difficulties involved in making formal education an active force for conscious cultural change will vary depending on which of these eight alternative combinations American society adopts.

Alternative Impacts Formal Education Could Have on
Cultural Change

Six potential impacts of education on cultural change can be defined as follows.

"O" equals education for conscious change in occupational skills, attitudes, and roles.

"R" equals education for conscious change in non-occupational cultural roles.

"S" equals education for conscious change in the status quo.

"o" equals education for conscious stasis in occupational skills, attitudes, and roles.

"r" equals education for conscious stasis in non-occupational cultural roles.

"s" equals education for conscious stasis in the status quo.

Eight alternative combinations of selective educational impacts on cultural change are then:

- | | | | |
|----------|----------|----------|----------|
| 1) "ORS | 2) "ORs" | 3) "OrS" | 4) "Ors" |
| 5) "oRS" | 6) "oRs" | 7) "orS" | 8) "ors" |

While many mixtures of these combinations could be implemented, as ideal types they serve to illustrate the major properties alternative future educational system might exhibit.

A Future Educational System Working Entirely for Stasis

The last combination (ors) casts education in the role of a conscious cultural force for extreme stasis. As such, a major function of education would be to resist the unconscious cultural changes produced by technology, although social innovations tending to produce cultural change would also be discouraged.

The occupational training sponsored by such an educational system would focus on stabilizing the economy by keeping the young off the job market for long periods of time. Training designed to produce professionals skilled in creating cultural change would be eliminated from education. Students would be discouraged from seeking work in change-producing occupations.

This educational system would also focus on perpetuating existing cultural roles, emphasizing mainstream cultural values, and propagandizing to continue the present status quo. Students would be taught to resist

cultural role changes, and a universal hatred of education would be installed so that by the end of required schooling, students would be incapable of further learning. Two past models for such an educational system were Hitler's Youth Corps (when well established) and the Catholic Church in the Middle Ages -- both were quite successful at perpetuating conscious cultural stasis.

The society resulting from implementation of this educational system would be fairly passive economically and have little social mobility. Occupational roles would remain static, although technological improvements might eventually cause long-range changes. A repressive form of government might be required in this society to protect the perpetually rich from the perpetually poor.

The primary opposition to implementing this planned educational system for extreme conscious cultural stasis would come from those dissatisfied with American society as it now exists, those desirous of unlimited technological expansion, and those reluctant to use education as a tool to propagandize for the present power structure. The prevalent American belief in the desirability of "progress" might be used to mobilize resistance to this educational system for stasis. These sources of opposition, coupled with the difficulties in making any change in current educational practices, would probably militate against any such system being adopted unless many Americans became terrified of the society experiencing the change-based malfunctions described in books such as Future Shock.

The seventh combination (orS) is actually quite close to this stasis-oriented system in its implications. In this combination, a new power-elite would use education as a propaganda tool to gain societal control, but besides that change the ultimate results of an educational system such as "orS" would be identical to those just discussed.

A Future Educational System Working Entirely for Change

The first combination (ORS) casts education in the role of a conscious cultural force for extreme change. As such, the major functions of education would be to implement continuous cultural change. Some societal consensus mechanism independent of education would have to be evolved so that an initial set of conscious cultural directions could be agreed upon. Modifications in these directions would be made periodically -- perhaps by some sort of election or by the pluralistic creation of different sub-cultures.

The occupational training sponsored by a change-oriented educational system would focus on early entry of the young into the job market. Many professionals skilled at creating cultural change would be trained, and students would be encouraged to seek work in change-producing occupations. Education might well train students for occupations not currently in existence -- when these students graduated, the society would change economic policies to create positions in these areas.

This educational system would also focus on experimenting with alternative cultural roles, emphasizing a wide spectrum of cultural values, and propagandizing against the current status quo. Students would be taught to love the process of learning, and education would become a life-long activity. The societal norm would become continuous change from whatever cultural system was then current. The mechanisms by which the culture would keep its integrity during this process would have to be established very carefully, as the tendency would be for the culture to disintegrate.

The society resulting from implementation of this educational system would have no permanent characteristics. A high degree of plurality and of toleration of individual differences would probably be present. Social mobility would be high, and present distinctions between rich and poor might largely disappear.

The primary opposition to implementing this system for extreme conscious cultural change would come from those satisfied with American society as it now exists, those desirous of reducing technological innovation, and those wanting a stable and predictable way of life. The resistance of any society to change in its basic cultural assumptions and the difficulties inherent in making any change in current educational practices would probably prevent such a system from being adopted. Only if many Americans were convinced that the present culture was an evolutionary dead-end could such a change take place, and even then the initial response would probably be to design a new, permanent, "ideal" culture rather than adopt a constantly changing cultural matrix.

The second combination (OPs) is actually quite close to this change-oriented system in its implications. The only major difference is that a single power-elite would attempt to retain control of the society while it passed through continual changes in occupational and cultural roles. While it does not seem likely that a single elite could continue to dominate in a situation of continual societal flux, an elite which perceived a necessity for cultural change and yet did not want to lose control might adopt such a combination.

Future Educational Systems Working Partially for Cultural Change and Partially for Cultural Stasis

The remaining combinations have education making a selective impact on cultural change. The possible variations within these combinations are numerous:

Education could work either temporarily for cultural change until a new cultural matrix was established or permanently for cultural change so as to create continual societal flux.

Education could selectively assume neither a change-producing nor a stasis-producing role, acting as a neutral force which neither encourages change nor resists it.

The major properties of these different combinations have already been considered in discussing the extremes of continual conscious change and continual conscious stasis, so only a brief description of the properties of each remaining combination will be given..

Combination 3 (OrS) has education working for change in the status quo and in occupations, but for stasis in non-occupational cultural roles. Harlem Prep, Job Corps, and similar programs illustrate planned educational systems which have been implemented in the United States whose goals fall within this combination.

The society shaped by this educational system has high economic mobility and aggressive economic policies. Technological advances might dictate most of the changes in the educational curriculum. Non-occupational cultural roles would probably remain quite rigid without much effort on the part of the educational system as these roles would act as a harbor of security from constant occupational change. Those changes in non-occupational cultural roles which did occur would tend to come from technological innovation rather than social invention.

Combination 4 (Ors) has education working for changes only in occupational roles, attitudes, and skills. This combination is best illustrated in the United States by the more innovative of the private preparatory schools. In general, the population of these schools is overwhelmingly upper-class and most students want to be prepared for college, but the subject matter offered is focused on training students to assume innovative professional positions. The society shaped by this educational system would be economically aggressive, but would have low economic and social mobility.

Combination 6 (oRS) is the opposite of combination 3; education works for change in non-occupational cultural roles, but not in the status quo or occupations. In the United States, schools like Summerhill organized around "personal freedom" and "group sensitivity" fall within this category. The knowledge conveyed in such schools is fairly traditional and the children attending are usually from well-off families; all of the innovational energies within the school are focused on interpersonal dynamics.

The society shaped by this educational system emphasizes social invention and discourages technological innovation. Hierarchical cultural role structures might tend to disappear (or have high internal mobility), but economic mobility would be low. Educational curricula would be more affected by the latest psychological theories than the latest scientific discoveries. Combination 5 (oRS) is quite similar in its effects; the only difference is that a new power elite would emerge, while in combination 7 the present elite would retain control.

The difficulties that would be encountered in implementing any of these combinations are fairly obvious:

Continuous occupational change will be resisted by those opposed to further technological expansion. Occupational stasis will be resisted by technologists and those desiring high economic mobility within the society.

Continuous change in non-occupational, cultural roles will be opposed by those wanting a stable, predictable society. Stasis in non-occupational cultural roles will be resisted by those presently occupying undesirable role positions.

Changes in the status quo will be resisted by those in power and encouraged by those who want to be in power.

In general, those satisfied with America at present will favor cultural stasis; those dissatisfied will favor cultural change.

Possible "System Breaks" Within the Model

Two "system breaks" which could change the functioning of the entire model so significantly that the model might cease to be a valid representation of the education/society system are:

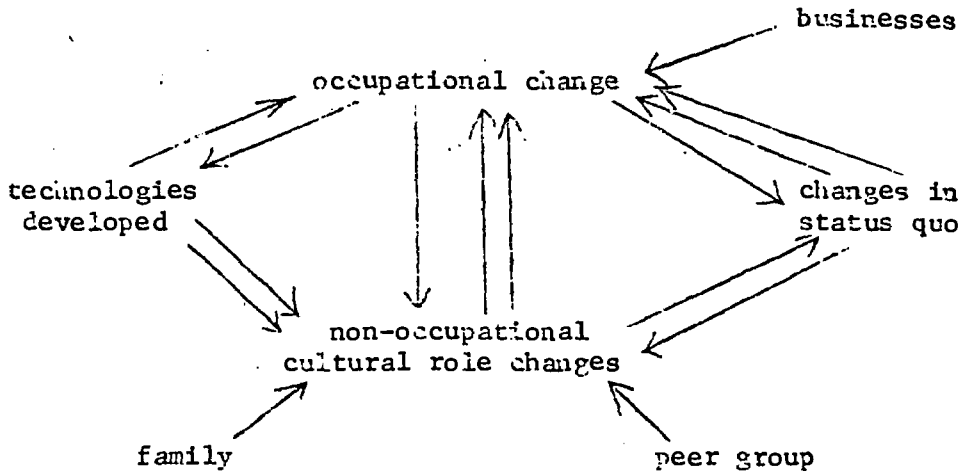
an end to formal education, or

the emergence of a major impact of education on technologies developed.

The idea that the American formal educational system might cease to exist is surprising, but there are two ways in which this might conceivably take place. First, the American economy might collapse to the extent that school bonds would not be passed, teachers' salaries not be paid, and school systems forced to close (in some cities in the United States, school service has been severely curtailed even during the present minor recession). Alternatively, a "deschooled society" such as that proposed by Ivan Illich might, in practice, prove to be so diverse as to be unregulatable; and thus schooling might cease to be formal education in any sense.

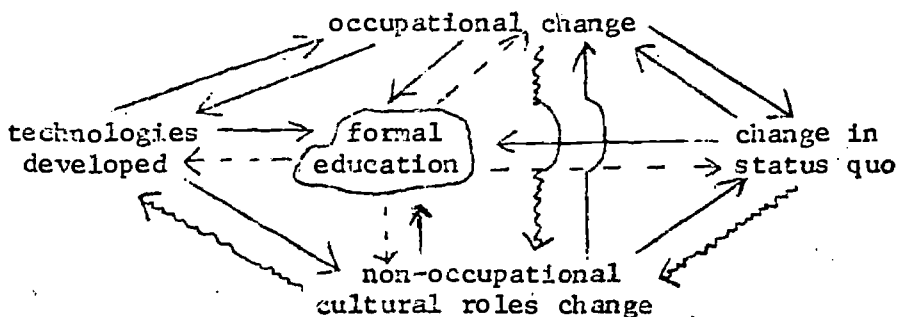
In these situations, it seems quite conceivable that employers would quickly devise some formal regulatory agency for screening for occupations and might institute extensive on-the-job programs to train employees. Training students for non-occupational cultural roles would probably fall primarily on the family (adding to the considerable responsibility already vested there) and, for older students, on the peer group. Any planned training to preserve (or alter) the status quo would probably disappear altogether.

The results of this fragmentation of the responsibilities now carried by the American educational system would probably be that business, the family, and the peer group would gain considerably more power within the society. Our model of cultural change might then look like this:



Ultimately, some kind of formal education would probably re-emerge within American society, as it is difficult to conceive of the United States giving up such a useful institution as formal education for a long period of time.

Another possible "system break" would be the emergence of a major impact of formal education on technologies developed. Our model would then become:



How could formal education affect what technologies the society developed? Conceivably, an ideological position might emerge -- taught through the schools -- which denied the possible validity of some scientific theories. For example, for a long period, the theory of evolution could not be taught in many schools in the United States. Another example: Lysenkoism had a major impact on the development of biology in the Soviet Union.

While it does not seem very likely that an ideology would be allowed to dominate science in the United States, it is certainly conceivable. Even an extremely pacifistic (or extremely militaristic) foreign policy stance, taught through the schools, would have a strong effect on the directions in which American technology developed.

In situations such as these, formal education would assume such a powerful societal role as to be the major determinant of cultural change or cultural stasis. This is by no means a new occurrence in human history; many societies with pre-industrial economies operate more or less on this basis (although pre-industrial societies are more constrained in their choices by natural phenomena than American society). Presumably, the government -- or whatever agency regulated formal education -- would assume a very powerful role within America. It is likely that pluralistic educational philosophies would not be allowed, as these might conflict with the central ideology.

Overall, these two potential "system breaks" result in opposite situations. In one case, the other societal institutions assume many of the responsibilities of formal education; in the other case, formal education becomes a very dominant societal institution.

Conclusion

The difficulties that an educational system for conscious change must surmount are very grave. Even if such a system is possible in theory, it is quite conjectural whether any of the eight alternative combinations of conscious educational impacts described in this paper can be implemented.

And yet, the idea of formal education serving as a vehicle for conscious cultural change remains tempting. Perhaps the temptation comes because education is such a powerful tool for affecting the long-term cultural

future. Perhaps the long-term dangers that world civilization faces make even a remotely possible solution seem a real hope.

We believe that the task of re-orienting formal education to a conscious, active cultural force is one of the most important in America today. This task can be accomplished only by anthropologists, educators, and experts from other fields of knowledge working together as a coherent group. It is our hope that this paper will serve as a contribution to the process of evolving a shared base of ideas on which such a group can be built.

Footnotes

1. Thomas Green, "Some Social Functions of the Public School System" (Syracuse, N.Y.: Educational Policy Research Center, 1967). Mimeo.
2. In general, high school grades predict college grades with a 0.30 - 0.55 index of correlation. The correlation between college grades and graduate school grades is lower.