

# **INVESTMENT IN HUMAN CAPITAL: EDUCATION AND DEVELOPMENT IN STOCKTON, CALIFORNIA, AND GWEMBE, ZAMBIA**

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## **A THEORETICAL INTRODUCTION**

One theory that has influenced educational policies in the Third World and in the United States since the early 1960s is the theory of human capital. The theory states that education increases people's general mental capabilities and technical skills, thereby increasing their productive potential in the labor force. It follows that schooling is an investment and that people are an important repository of capital and not just a source of raw labor. The capital value or productive value of an individual is the amount of schooling he or she has before entering the labor force (Blair 1971; Blaug 1970; Dore 1976; Harrison 1972; Schultz 1961; Weisbrod 1975).

Proponents of human capital theory go on to say that both society and individuals invest in education because of the expected returns or benefits. Benefits to the individual or "private rate of return" are his or her total earned income due to schooling minus private costs of attending school. The private costs include what the person would have earned had he or she been in the labor force during the years of schooling ("income foregone"), plus actual expenses for fees, supplies, and the like. Individuals are said to calculate the likely return or benefits in deciding whether it "pays" to go to school or continue for additional years if they are already in school. Typically human capital theorists have claimed that in the United States the private rate of return for high school education is about 20% above what a person would earn with only an elementary school education. The rate of return for college education is about 15% above the earnings of a high school graduate. The private rate of return has been interpreted as the reason why individuals demand and pursue education.

Societal benefits or social rate of return from investment in education are calculated in the same manner. The social costs of education or investment include the productive contribution people would have made during their years of schooling had they been in the labor force (i.e., societal "income foregone," which includes taxes), plus actual costs to society of supporting educational institutions. The social rate of return is the total productive contribution of the educated minus the social costs. This social rate of return is used by society's planning agencies as a guide in allocation of resources and justification of expenditure in education.

Applied to developing nations, the theory of human capital asserts that the economic and social development of these countries would be facilitated if they invested more in educating their people (Dore 1976). The theory is partly responsible for the large share of the budgets of developing nations given to education. With regard to the overrepresentation of minorities in low-paying jobs in the United States, the proponents of human capital theory believe that the real problem of such people is that they have little capital value in the labor market. The solution to their employment and economic problems, therefore, lies in increasing their capital value by giving them more education. Their higher educational credentials will enable them later to obtain more desirable, higher-paying jobs. Better jobs will not only solve the economic problems of such individuals but will also benefit society through taxes derived from their higher taxable income. In the United States the theory has been used to justify training programs for unemployed people and people on welfare.

The results of educational policies based on assumptions of the human capital theory have not been particularly encouraging, either in developing nations or in the United States. The reasons are many and complex, as critics have noted (Blair 1971; Dore 1976; Harrison 1972; Levin 1975). For example, Levin and his associates (1975) have pointed out that actual school experiences may have little to do with workers' productivity if racial or other social barriers deny subordinate-group members access to jobs commensurate with their education. Similar barriers may also affect the private rate of return to the individual for any additional schooling. The problem here, in other words, is that the human capital theory erroneously assumes that the labor market always operates impartially in the selection of workers.

Critics like Levin and others have thus pointed out a serious problem in the application of human capital theory to subordinate groups, especially in rigidly stratified societies based on race, caste, and so on. In the present paper I want to go beyond this criticism, however, by exploring two related issues which should further modify the application of the theory to subordinate groups. I suggest through case study comparison that the lower educational attainment (and, no doubt, lower performance) of some subordinate groups is due to the nature of the investment in their education, both by the powers that be and by members of the subordinate groups themselves.

I shall first try to show that societal investment in the education of subordinate-group members is not necessarily based on a rational economic calculation to maximize the group members' potential contribution to the general economic well-being of the society. Rather, what determines how much and what kind of education is given to members of the subordinate group appears to be the dominant-group members' conception of "appropriate" roles for the subordinate-group members and of how education should prepare them for such roles. In other words, society does not invest in the education of subordinate-group members in such a way as to make them effective competitors in the labor market with members of the dominant group for the more desirable, higher-paying jobs.

Following examination of societal investment, I shall argue that lower educational attainment of subordinate-group members is due to their unwillingness to make maximum investment in education under what they perceive as a limited opportunity structure. Human capital theory tells us that people are motivated to pursue education because they expect to get good jobs, earn good wages, and derive other benefits from it. Critics rightly point out that this connection between investment and benefits may be weak or lacking when there are social barriers. I suggest in the analysis that follows that under the latter condition subordinate-group members (a) do not make maximum investment in their education and (b) may seek alternative strategies to supplement the benefits lacking from education. These responses may contribute to their lower educational attainment and performance.

These issues will be explored through a comparative analysis of two case studies. One is a study of the education of American blacks in Stockton, California (Ogbu 1974, 1977), where blacks are a minority group in a racially stratified society. The other case study is of the Gwembe Tonga in Zambia (Scudder and Colson 1980). The Gwembe Tonga are, in the ethnographic present, a subordinate group under colonial stratification. Each case will be first examined separately; the last part of the paper will focus on similarities and differences.

## THE STOCKTON EXAMPLE: BLACK EDUCATION

### Background

When I initially studied blacks in Stockton in 1968-70, they numbered about 7,000 and constituted about 7% of the city's population. However, they accounted for over 40% of the study neighborhood. Although there have been some blacks in Stockton since the city was founded in 1853, most present-day adult residents immigrated from the southern United States between World War II and 1960. This southern background is significant in understanding

their responses to education in Stockton and has some relevance in comparing them to the people of Gwembe.

At the time of my study, blacks lagged behind whites and other ethnic groups, except, perhaps, Mexican-Americans, in both school performance and educational attainment. At the same time, some changes were taking place in the school system which were said to be designed to improve the school performance of blacks and similarly "disadvantaged groups"; but the result of the changes were not particularly encouraging. In this section I want to explore how societal investment and black responses or investment contribute to the educational lag of blacks.

### Black Subordinate Status

Throughout the United States blacks have historically occupied a subordinate position relative to whites. In fact, I have described blacks as a castelike minority group (Ogbu 1978) to distinguish them from other subordinate groups whose subordination is less extreme. The castelike status of blacks is particularly strong in the southern part of the United States where most blacks in Stockton came from. Until recently blacks in that region (as well as elsewhere in the United States) were denied many social, economic, political, and other privileges accessible to whites. Of particular relevance here is that before the mid-1960s blacks faced a *job ceiling*. That is, unlike white Americans, blacks were not allowed to compete freely as individuals for any jobs they wanted and for which they had the educational qualifications or credentials; they were excluded from the more desirable jobs solely because of their race; and because of these exclusions most blacks were confined to menial jobs or held jobs below their educational qualifications, and many were unemployed and dependent on welfare or public assistance.

Blacks in Stockton also faced a job ceiling. Before the mid-1960s they had difficulties getting good jobs and earning wages commensurate with their level of schooling (Ogbu 1974, 1977). My study of the unemployment history of local blacks as well as a study by the California Fair Employment Practices Commission (1974:4) showed that the first black settlers in the city in the 1850s worked as sailors, small shopkeepers, cooks, carpenters, and muleteers in the gold mines. However, for the next hundred years they did not achieve higher occupational status because of the job ceiling. At the time of my study, which lasted from 1968 to 1970, there were many discussions and speculations about the causes of high unemployment among blacks. Public hearings conducted by city council members suggested that tests, interview techniques, and other mechanisms were used by white employers to exclude blacks from desirable jobs. Local civil rights groups appeared to confirm the allegations when they forced local businesses to hire blacks for the first time or for positions not previously open to them by threatening to boycott the businesses (Ogbu 1977).

Starting in the mid-1960s, new opportunities began to open up for blacks to get desirable jobs, to buy homes or rent in better neighborhoods, and to get elected to public offices. Many local agencies even began to search for and recruit "qualified blacks" to fill middle-class jobs. This change in the opportunity structure was due to the passage of two civil rights legislations by the United States Congress in 1964 and 1965, which, among other things, made it unlawful to discriminate against a person in jobs and other matters on the basis of race, sex and so on. It can be said that before that time Stockton did not fully utilize the educational qualifications of local blacks and did not reward them for their educational efforts to the degree it rewards whites for the same accomplishments. Blacks are not hired for jobs in which they might have made maximum productive contributions to society based on their education. They were hired for jobs thought appropriate for them because they were black.

### Social Investment in Black Education

Lacking power nationally and locally, blacks had little influence on the form of schooling they received. Whites generally decided the kind of schooling blacks should receive. And white people's idea of black education generally depended on what roles they thought blacks should play in society. For example, before 1930 southern whites thought that blacks should do mostly manual labor in agriculture or industry; they therefore designed black schools to teach "industrial education," which was basically teaching them manual labor skills. But this situation changed in the 1930s when "industrial education" became profitable. At that time many American industries were requiring workers trained in industrial skills, and the state and federal governments were giving substantial financial support for industrial education. Under these circumstances white authorities refused to give black schools the financial resources they needed to teach the kind of industrial education required for employment in the general economy. They even began to encourage black schools to teach classical or academic subjects which previously they had frowned upon. They did not want blacks to get the kind of education that would make them effective competitors with whites for desirable and well-paying jobs (Myrdal 1944:897-99). Thus societal investment in black education was for a different, separate, and "inferior" education.

In Stockton societal investment in black education was also consistent with white people's idea of the niche blacks should occupy in the local labor market. In the early days, from 1863 to 1879, they even forbade blacks and American Indians to attend the same public schools as the whites. After the courts declared such action unconstitutional, whites used residential segregation to keep blacks in segregated "neighborhood schools." As documents presented in Stockton's school desegregation trial in the early 1970s showed, these segregated schools were usually inferior to the schools attended predominantly by whites (Ogbu 1977:11). In my interviews with various school officials they denied that there were differences between schools in staffing, funding or facilities. But there appeared to be other less obvious ways in which black schools and black schooling differed from white schools and white schooling. One such difference probably was the way school personnel related to black parents and children through stereotypes, which may have prevented teachers or school personnel from discovering the true academic problems of black children and how best to assist them. Teachers' grading also tended to reflect the stereotypes rather than the children's true level of effort. For example, in the elementary school I studied teachers repeatedly gave students the same "average grade" of C, which ignored differences among the students as well as the progress or lack of it which an individual child might make from one year to the next (Ogbu 1974:164-69; 1977:12). At the high school level there were not enough counselors to provide much-needed academic and vocational guidance. Because they were assigned more students than they could handle, the counselors tended to redefine students' need for academic and vocational guidance as psychological problems stemming from faulty personal adjustment to school. The latter, they explained in turn, was due to the fact that the students came from poor family backgrounds. Therefore the counselors sought to remedy the assumed personal adjustment problems to the school by instituting group therapy or group counseling sessions, where the students were encouraged to talk about "their personal problems." The way the children were tested, classified, labeled, and tracked into curriculum areas also contributed to their lack of school success, as I have shown elsewhere (Ogbu 1974, 1977:13-14). All of these factors contributed to the black children's disproportionate school failure, to their school dropout rate or early termination of schooling.

Several changes were initiated in the mid-1960s which were intended to improve black school performance and encourage blacks to increase their level of schooling. Part of a national effort, these programs included volunteer tutoring by middle-class whites, efforts to "improve" school-community relations, the recruitment of minority school personnel, school integration plans, compensatory education, and preschool education. There was even a plan for white families to "adopt" black families (Ogbu 1977:17-18). The results of these efforts were not, however, very encouraging.

In summary, societal investment in black education up to the mid-1960s was determined more by the niche that whites assigned to blacks in society, especially in the local labor market. It was not based on expectation of maximum social rate of return. Consequently, blacks were given an inferior education. Today, there is probably no difference in actual monetary costs of black and white education in Stockton; expenditures for black education may be more because of many "remedial" programs. However, the effectiveness of the investment is greatly reduced by the actual treatment of blacks in these schools and by the kinds of responses blacks make to schooling based on their perceptions of the potential benefits they can expect. The nature of these perceptions and responses, or black investment, is what we consider next.

### Black Investment in Education

Human capital theory states that people decide to pursue schooling or additional years of schooling because of the benefits they expect from it. The theory generally emphasizes the positive side of this assumption. Proponents have not, however, looked at situations in which educational investment does not yield benefits or at situations in which the benefits are unequal for two or more groups within the same society. As the above discussion shows, both situations apply to blacks in Stockton. How do they affect black investment in education? That is, how do blacks respond to schooling under such circumstances?

There are three ways in which we can examine black investment in public school education. Besides the amount paid in taxes, black families lose family income during their years in public school (i.e., income foregone). However, in the United States, this amount is inconsequential because state and federal laws do not permit children to join the labor force during most of the public school years.

Another type of investment is the actual cost to parents or the family of sending a child through the public schools. As Scudder and Colson (1980:18) have shown for the Gwembe Tonga, even when education is free there may be a number of things connected with schooling which cost money. In the Stockton public schools these may include such things as class photos, school lunches, parents' membership in the PTA, class projects, the book fair and so on. I did not make a systematic study of this type of investment, and I know of no one who has done so for public schools. It would be interesting in future research to study the extent to which blacks (and other groups) make such an investment and how it is related to their expectation of future returns.

My discussion is devoted mainly to the third type of investment—*effort*. Here I want to suggest that blacks have responded to the twin problems of inferior education and the job ceiling in a number of ways that probably reduce the amount of effort they invest in pursuit of academic goals in the public schools. I begin with black reaction to their education, which they regard as inferior. Furthermore, blacks assert that their education is designed to prevent them from qualifying for the more desirable jobs open to whites. For these reasons they spend a good deal of time and effort "fighting" against whites who control the public schools and against school personnel. In Stockton the "fight" or "struggle" began soon after the public schools were built and blacks were forbidden to attend the same schools as whites and were later resegregated through extralegal devices. Blacks continued to attend more or less segregated schools until the mid-1970s when courts decided in their favor and ordered the city to desegregate its schools. However, blacks maintain that informal segregation still exists because of residential patterns. One consequence of this long-standing conflict between blacks and the public schools is a deep and mutual distrust. I have suggested elsewhere (Ogbu 1981a) that the distrust probably makes it difficult for blacks to accept and internalize the beliefs, values, and attitudes schools teach about society or the economic system, especially about "how to make it" within the system (Ogbu 1978, 1981b).

Black response to schooling is also affected by the dismal rate of return for blacks' investment in education. Although local whites say that a disproportionate number of blacks are employed in menial jobs or do not have jobs at all because they lack adequate education, blacks have a different view of the situation. They say that their high unemployment and concentration in menial jobs are due to discrimination in hiring by white employers. They sometimes say that to be hired for a desirable job a black person has to be "twice as qualified" as a white person who wants the same job. They deny that lack of education is at the heart of their employment problem, citing specific cases of "qualified" individuals who were not hired.

I am not sure how these considerations enter into decisions of individual blacks, particularly children, to work hard or not to work hard in school, and to continue or drop out of school. What I know is that those I interviewed, including students, parents, and other members of the community, agreed with our observations that black children do not appear to take their schoolwork seriously, do not appear to do their schoolwork diligently, and do not appear to persevere enough at it. Some black teenagers, like Hunter (1980) of Wilmington, Delaware, have written explicitly that the perceptions of a dismal future in the job market discourage black youths from serious educational pursuits. Some of my teenage informants in Stockton said the same thing. But how the past and present limited post-school opportunity enters into black children to affect their academic efforts remains to be studied and spelled out. Here I will only indicate the responses I think black people have made (and still make) to the dismal rate of return on investment in education. Then I will speculate on how the responses may affect school behavior.

One major response which has been well documented in various parts of the country as well as in Stockton is the *collective struggle* or "civil rights movement" approach. Blacks have used this approach effectively to gain access to jobs, better wages, and promotions. For example, in 1967 Stockton blacks boycotted downtown businesses, an action that resulted in blacks being hired as sales clerks and for other positions; in 1971 one black organization threatened several local businesses with a boycott and shortly after the businesses hired more than 156 minorities, including some in positions not previously open to minorities. Blacks have used the same strategy to get local private and public agencies (e.g., the school system) to increase their black personnel as well as promote blacks to higher positions. The success of this strategy generally reinforces the beliefs among local blacks that their unemployment problems are not necessarily due to lack of educational qualification but are the results of "the system" which denies them fair return for their investment in education. One may speculate that this interpretation could, under certain circumstances, lead to the view that efforts should be shifted from education to collective struggle.

Another strategy is *clientship* or *uncle tomming*. Basically, blacks have long realized that to get ahead even in that universe which is open to them one needs white patronage; they also realized that the way to get such patronage is by playing the old Uncle Tom game, to be compliant and dependent. The use of clientship to get ahead has been documented for blacks in different parts of the country and at different times (Farmer 1968; Ogbu 1981a; Powdermaker 1968). My research in Stockton found a widespread belief among both blacks and whites that those blacks who were successful (i.e., had good jobs and higher social positions) achieved success through clientship. There are some blacks who respond to the job ceiling by supplementing their income from *hustling*, *pimping*, and related activities in the "underground" or "street" economy; or by becoming totally involved in such activities (Bullock 1973; Valentine 1979). Some teenage informants in Stockton argued that hustling and pimping should be regarded as legitimate survival strategies because of the job ceiling against blacks.

These and other strategies sometimes serve as alternatives to investment of efforts in education; sometimes they serve as supplementary investments. In any case, because blacks see "the system" as responsible for their lack of good jobs, adequate wages, and related benefits, these strategies often appear as attractive alternatives or, at least, necessary alternatives to investment in education. Where these alternatives are a part of the culture, as appears to be the case in the Stockton black community I studied, children begin to learn them as early as

they learn other aspects of their culture. Thus children's acquisition of knowledge of these alternatives and associated skills may affect their motivation for school striving. Their effects on attitudes toward school and school behavior may be seen in such things as irregular school attendance, truancy from classes, disruptive class behavior, refusal to follow instructions in doing schoolwork, and lack of seriousness in taking various school tests.

## THE GWEMBE EXAMPLE: TONGA EDUCATION

### Background

The Gwembe Tonga, who number about 76,000, live in the Southern Province of Zambia in the Zambezi Valley or Gwembe Valley. They were relocated to their present site in 1959 at the time the Kariba Dam was constructed on the Zambezi. Scudder and Colson began to study Gwembe education in 1956-57, focusing on secondary school education (Scudder and Colson 1980). Their study continued to the mid-1970s. Compared to their kinsmen, the Plateau Tonga, the Gwembe Tonga lagged behind in educational attainment. In their analysis Scudder and Colson conclude that the relative educational lag of the Gwembe is partly due to the nature of the investment returns for education among them. Here I compare the Gwembe Tonga to blacks in Stockton because both are subordinate groups under racial/colonial and racial stratifications, respectively.

### Gwembe Colonial Subordinate Status

Before Zambian independence in 1964, the Gwembe Tonga were a part of a colonial stratification in a territory then known as Northern Rhodesia. There the British authorities established a system of government consistent with their conception of social order in their African colonies. Gwembe neighborhoods were reorganized into local chieftaincies for administrative convenience rather than on the basis of traditional alignment. Although the indigenous population was highly egalitarian, all Tongans in Gwembe now became collectively subordinate to whites—colonial authorities, missionaries, and settlers.

Like blacks in Stockton the Gwembe people were denied many social, economic, political, and other privileges open to whites. In jobs, for example, they faced a job ceiling. Scudder and Colson report (*ibid.*:40) that when they began their research very few jobs in Gwembe "required even minimal literacy." The exceptions were "top administrative and technical jobs which were filled by a handful of expatriates." They also said that as late as 1956 most jobs available in Gwembe which required formal education were reserved for whites, either expatriates or those of European descent. The structure of opportunity appears to have remained very limited for the Gwembe until 1964. At that time the departure of many whites left vacant administrative, technical, and other positions to be filled by the Gwembe and other Africans. Many new positions were also created to meet national needs. In other words, Zambian independence led to the elimination of the job ceiling (Scudder and Colson 1980:18), enabling educated Gwembe people to obtain high-status and high-paying jobs both in Gwembe district and in the towns.

## Societal Investment in Gwembe Education

Throughout the colonial period, from the turn of the century to 1964, societal investment in education in Gwembe seemed to be determined primarily by the epistemology of white people who were in the territory as colonial authorities, missionaries, or settlers. That is, education was designed or changed at any given period in the colonial era to prepare Gwembe people for the niches in the colonial, social, and economic system which whites considered appropriate for them.

As reported by Scudder and Colson (*ibid.*:50), the Primitive Methodists who built the first schools in Gwembe designed the schools "to create good village Christians and good workers for the farms, mines, and factories of Central Africa." Neither missionaries nor colonial authorities saw Gwembe people as eventually becoming commercial farmers, town dwellers, and clerical workers; nor did they consider that the Gwembe people might become competitors for administrative and technical jobs monopolized by whites. This conception of the Gwembe remained in effect until after World War II. Throughout the period education was adapted to produce the kind of Gwembe person the powers that be desired to see: from 1907 to 1916 Gwembe schools emphasized the skills needed in rural areas, skills in agriculture and manual labor. Scudder and Colson report that under Fell, the manager of these schools, "School children spent part of the day working in the mission fields, caring for livestock, gathering wood and water, working in the kitchen, or black smithing, depending on the immediate work at hand" (*ibid.*:50).

The emphasis on manual skills was further reinforced by the recommendations of the Phelps-Stokes Commissions on Education in Africa. The commissions were funded by the Phelps-Stokes Fund of New York to survey African education in the colonial territories, at the suggestion of missionaries and with the encouragement of colonial administrators. The commissions were made up of people closely associated with black education in the southern United States because of a prevailing belief that the political, social, and economic status of blacks in the southern U.S. was very similar to that of the colonized Africans in Africa. Indeed, the commissions concluded, though erroneously, that the problems of Africans in the colonial territories and those of blacks in the South were similar. The commissions therefore recommended that the same form of education would solve the problems of both groups: for the masses in both places the educational emphasis should be on agricultural and industrial or manual training, and there should be some academic and professional training for the few who would form the leadership of their communities (Berman 1973; Carmody 1982; Lewis 1962).

Following the Phelps-Stokes reports African education was modified to reflect some of the recommendations. For example, Jeannes schools were established in Africa as in the southern U.S. to train school supervisors who would ensure that the industrial education curriculum was implemented (Scudder and Colson 1980:50). As Scudder and Colson report (*ibid.*:50), "the supervisors were expected to ensure that the village schools maintained the emphasis on rural areas and manual skills and did not become devoted to the creation of a clerical class oriented to the towns."

Industrial education was opposed by African nationalists, who pointed out that it prevented Africans from competing effectively with European settlers for desirable jobs and other economic and power positions. Scudder and Colson (*ibid.*:50) report that one of the first acts of the Zambian government after independence was to redesign the educational programs to enable Gwembe children and similar groups to acquire the basic academic skills that would permit them to attend secondary schools and higher institutions and thereby compete successfully for the more desirable jobs now open to Africans.

### Gwembe Responses to Investment

Like blacks in Stockton, Gwembe people's responses to the education offered them were strongly influenced by their perceptions of the potential returns for their investment of money, effort, and time. When the first schools were established they saw no connection between the formal education taught and the kinds of jobs they traditionally did, as well as the new positions introduced by the colonial administration. For example, Scudder and Colson (1980:40) report that "neither chiefs nor court messengers needed to be literate, and even as late as 1967 not one of the court messengers whom we had interviewed had completed primary school." Because children and their parents did not see material benefits to be gained, many people did not enroll in school and some of the schools had to close. Gwembe also stayed away because the schools were trying to teach them agricultural and manual labor, which they already knew how to do better than the teachers (*ibid.*:51). As Scudder and Colson put it (*ibid.*:51), the missionaries "were not experts on agriculture suitable to the region, nor did they know much about handling livestock under Gwembe conditions." Therefore the people trained in mission schools did not necessarily become better farmers or better livestock raisers.

In summary, the Gwembe were apathetic toward education during the colonial period for several reasons. One is that the schools were trying to teach them what they already knew how to do. Another is that there were not many modern-sector jobs to which educated Gwembe could aspire. A third was that in general, the colonial society did not reward educated Gwembe for their achievements. Scudder and Colson report that in most situations in which school experience mattered, the colonial regime and white employers presumably favored expatriate Europeans.

Under this circumstance the Gwembe felt they could not expect much return for their investment in education. They therefore did not attend schools in great numbers. Parents and other sponsors were reluctant to bear the financial burdens of sending children to school. And the children do not appear to have continued their schooling beyond a few years.

But the Gwembe changed their attitudes and behaviors toward education after Zambia became independent as they saw structural changes in society which increased the opportunity for educated Gwembe and other Africans to be employed in high-status jobs which increased the private return for educational investment (*ibid.*:18). We have already described these changes. Here we note the report of Scudder and Colson that when parents observed the connection between schooling and desirable jobs and income they began to encourage their children's schooling, though at first cautiously (*ibid.*:18). From the authors' account, it seems clear that new responses from parents and other "sponsors" were largely based on calculations of the economic benefits of schooling. They say, for example,

During the 7 years of primary school followed by secondary school, village sponsors expect to invest at least K400 in the education of each child. They could also expect to lose their labor during the same period. . . . Once educated children become employed the majority could be expected to remit back K400 to their sponsors within five years, hence probably making education the most reliable form of major investment available to the village level since independence. [*ibid.*:18]

Additionally, the educated young person with a job was now expected to help educate his or her younger siblings.

The perceived increase in return for investment in education, according to the authors, spurred demands for education by Gwembe people between the late 1960s and the early 1970s. Interest began to wane again when people realized in the mid-1970s that the opportunity structure was no longer expanding. In fact, it was shrinking because the positions vacated by white settlers and expatriates at independence had now been filled and the national economy no longer permitted continued creation of new high-paying positions and desirable jobs. Unlike their despairing parents and other sponsors, however, young people in Gwembe have tried to adjust to the changing labor market by lowering their expectations (*ibid.*:19), because those jobs

still available to the educated are better than other alternatives, say, in the traditional sector.

### COMPARATIVE CONCLUSION

Education as an investment makes sense, even under conditions in which some assumptions of the human capital theory are not borne out. An example is the education of subordinate groups in a stratified society, such as black education under racial stratification and the education of indigenous people in a colonial stratification. In both Stockton and Gwembe, societal investment in the education of subordinate-group members was based on the dominant group's perceptions of the educational needs of subordinate-group members, given their niche in the social and economic order. That is, society's investment in black education in Stockton and Gwembe people's education in the colonial period was not based on expectation of maximum social rate of return.

The responses to schooling by blacks in Stockton and the people of colonial Gwembe also made sense in the context of human capital theory. Individual members of each group appear to have made a rational decision, however unconsciously, not to make a great investment of effort and other resources in the pursuit of education because of the dismal rate of return. Both groups were also aware that they were being given inferior education that did not necessarily prepare them for the more desirable jobs open to dominant-group members. Stockton blacks continually fought whites to change their education; the Gwembe had to wait until after the colonizers left at independence.

The two groups also differed in some respects in their historical and structural experiences. Gwembe subordinate status lasted a comparatively short period. Also, structurally, the colonial stratification or domination did not destroy the traditional social and economic systems of the Gwembe. Thus the latter were never totally dependent on the economic system controlled by the dominant group. They could withdraw from active participation in the education system without grave economic penalties. In Stockton, on the other hand, blacks did not have control of a more or less independent social and economic system. They could not withdraw physically from schooling without penalties because schooling was compulsory up to the age of eighteen, and they had no independent subsistence economy to fall back on. Under these circumstances their only viable alternative was to develop and utilize supplementary strategies to satisfy their subsistence needs.

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