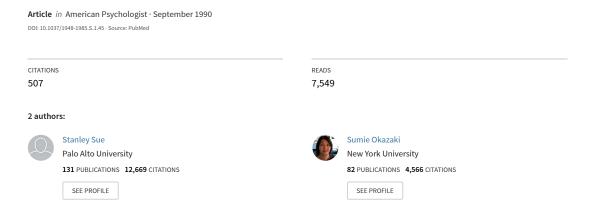
Asian-American Educational Achievements: A Phenomenon in Search of an Explanation



Asian-American Educational Achievements: A Phenomenon in Search of an Explanation

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Considerable attention has been paid to the academic achievements of Asian Americans because there is convergent evidence that this population has attained high educational mobility. In trying to explain the achievement patterns, researchers have largely limited their investigations to one of two contrasting hypotheses involving (a) hereditary differences in intelligence between Asians and Whites and (b) Asian cultural values that promote educational endeavors. Research findings have cast serious doubt over the validity of the genetic hypothesis. Yet, there has been a failure to find strong empirical support for alternative hypothesis concerning cultural values. It is proposed, under the concept of relative functionalism, that Asian Americans perceive, and have experienced, restrictions in upward mobility in careers or jobs that are *unrelated* to education. Consequently, education assumes importance, above and beyond what can be predicted from cultural values. Research and policy implications of this view are noted.

Great concern has been expressed over the educational achievements of American students in general and of ethnic minority students in particular. In 1984, Skinner wrote an article entitled "The Shame of American Education." Skinner's article lamented the educational mediocrity of American schools in terms of student achievements, motivational levels, and learning. Spence (1985), in her American Psychological Association Presidential Address, also noted the lack of excellence in schools, especially in fostering the learning of math and science. Indeed, there has been growing concern that Americans are falling behind students from other countries in educational achievements. The problems are particularly apparent in the schooling of ethnic minority students, such as Blacks, Hispanics, and American Indians, who show lower levels

of educational attainments, grades, graduation rates, and school persistence (see California State Department of Education, 1986).

In ethnic minority research, one of the most

In ethnic minority research, one of the most remarkable phenomena has been the high educational achievements demonstrated by some Asian-American groups over the last four decades. Although Asian Americans have been subjected to similar prejudice and discriminatory practices encountered by other ethnic minority groups, their educational attainments have been increasing. In this article we examine the achievements and two of the major explanations that have been proposed for the achievements of Asian Americans, involving possible hereditary or culturally advantages. The topic, of course, is highly controversial. Genetic explanations for racial or ethnic group differences in intelligence and achievements have generated intense debates. Even attributing Asian-American achievements to cultural factors can result in disputes involving cultural "superiority" or deficits.

From the very outset, let us make four points. First, as a group, Asian Americans do demonstrate exceptional achievement patterns. However, Asian Americans represent a heterogeneous group with marked within- and betweengroup variations in a number of characteristics (Barringer, Takeuchi, & Xenos, 1990; Sue & Abe, 1988). We also know that the high achievement levels must be tempered. Asian

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Americans show not only high educational attainments but relatively higher proportions of individuals with no education whatsoever compared with Whites and ethnic minority groups (Sue & Padilla, 1986). Second, although there is growing interest in Asian-American achievements, research findings have not been able to shed much light on the factors that account for the achievement levels. This fact is caused in part by the lack of research on the phenomenon and by the failure to clearly devise adequate or critical tests. Third, in the search for factors that influence achievement levels, single explanations cannot adequately account for the observed performance patterns. Thus, research on heredity, culture, child-rearing practices, educational experiences, and personality, among other topics, has yielded interesting but inconclusive results. Fourth, explanations for Asian-American achievements must incorporate what we call relative functionalism. Although cultural explanations propose that achievement is a result of Asian cultural values that extol the virtues of education, or of cultural practices that maximize skills in gaining education, the concept of relative functionalism also considers the problems of achieving in noneducational types of endeavors—those that are not a clear and direct outcome of educational performance. Perceived limitations in mobility in these endeavors increase the relative value or function of education as a means of achieving success.

Achievement Levels

In recent years, a number of popular magazines have portrayed Asian Americans as extraordinary achievers: U.S. News and World Report (Asian Americans: Are They, 1984); Newsweek (A Formula for Success, 1984); New York Times (Why Asians Are Going, 1986); Chronicle of Higher Education (Asian Students Fear, 1986); Los Angeles Times Magazine (When Being Best, 1987); Time Magazine (The New Whiz Kids, 1987); National Education Association Today ("Whiz Kid" Image, 1988); and Asian Week (Probing Into, 1990). These periodicals have pointed to the high levels of educational attainments shown by Asian Americans and supported by empirical evidence.

As indicated in Table 1, Asians and Pacific-Islander Americans exceed in national average for high school and college graduates. The rate

Table 1 Schooling Completed by Sex and Race/Ethnicity for Persons 25 Years or Older, 1980

Race/ethnicity	High school graduates (%)		4+ years college completed (%)	
	Men	Women	Men	Women
White	69.6	68.1	21.3	13.3
Black	50.8	51.5	8.4	8.3
Hispanic	45.4	42.7	9.4	6.0
AI/Alaskan	57.0	54.1	9.2	6.3
Asian/PI	76.8	71.4	39.8	27.0
Chinese	75.2	67.4	43.8	29.5
Filipino	73.1	67.4	32.2	29.5
Japanese	84.2	79.5	35.2	19.7
Korean	90.0	70.6	52.4	22.0
Asian Indian	88.8	71.5	68.5	35.5
Vietnamese	71.3	53.6	18.2	7.9

Note. AI/Alaskan = American Indian/Alaskan Native; Asian/PI = Asian/Pacific Islander. Bureau of the Census (1983, 1984).

of graduation from colleges and universities are higher, whether men or women are considered or whether Asians are compared solely with Whites (Bureau of Census, 1983, 1984). Other indicators such as measures of pursuit of higher education and persistence also reveal a strong involvement in education. For example, 86% of Asian Americans versus 64% of Whites are found in some kind of higher education program, two years after high school graduation; and for those who entered a four-year university, 86% of Asian Americans stayed the following year, compared with 75% for Whites, 71% for Blacks, and 66% for Hispanics (Peng, 1988). Within the University of California system, which enrolls the largest number of Asians in the United States, fully 26% of Asian-American high school students (not including foreign students) in 1985 qualified for entry, whereas only 13% of non-Asian students did. Asians also had the highest proportion of students graduating within five years of entry: 63% compared with 61% for Whites, 43% for Blacks, 50% for Hispanics, and 46% for American Indians. These figures do not include foreign students. The high levels of educational achievements can also be seen in reports from the College Board. College-bound Asian-American seniors (about 10% of them were foreign students) receive superior high school grades and consistently demonstrate higher

Scholastic Aptitude Test scores on the mathematics (SAT-M) subscores, but lower English verbal (SAT-V) subscores than do White or all non-Asian students. For example, in 1989, Asian Americans achieved average scores of 409 on the SAT-V and 525 on the SAT-M compared with scores of 427 on the SAT-V and 476 on the SAT-M for all other students. The high school grade point average of Asian American students was also higher than those of all other students, 3.25 versus 3.08 (College Board, 1989). (For all students, women had slightly lower SAT scores than did men, but they had superior high school grades.) Hsia (1988) noted high achievements not only in these scores but also among the finalists and winners in the National Merit Scholarship Program, Presidential Scholars, and Westinghouse Science Talent Search Program. The evidence for high educational attainments is quite convergent.

Explanations for the Achievement Patterns

Is it possible to find a simple or parsimonious explanation for the achievement levels of Asian Americans? For example, we know that educational achievements of individuals are directly related to the social class of parents (Jencks, Crouse, & Mueser, 1983). Perhaps Asian Americans are "advantaged" in terms of socioeconomic standing and provide their children with special resources and opportunities. There is no strong evidence that this can explain the racial or ethnic differences. In a report by Arbeiter (1984) on college-bound seniors, the median parental income of Asian Americans was lower than that of Whites, \$25,400 and \$32,900, respectively; the educational attainments of the parents were comparable. Yet, Asian Americans were found to have higher high school grades and SAT-M scores than did Whites.

Perhaps some of the educational achievements can be accounted for by the inclusion of foreign students among the Asian Americans or by the inclusion of Asian immigrants who already have high levels of education and subsequently become naturalized American citizens or permanent residents. The available evidence does not support this possibility. Using data from the 1980 U.S. Census, Kan and Liu (1986) compared the percentage of native- and foreignborn individuals who had completed four years

of college. Although there was a tendency for foreign-born individuals to have higher educational levels, perhaps because of immigration policies favoring the educated, American-born Asians exceeded American-born Whites in the proportion of those with four years of college education: Whites, 18%; Chinese, 42%; Japanese, 27%; and Koreans, 27%. Filipinos (15%) and Asian Indians (13%) born in the United States had somewhat lower percentages than did Whites.

Heredity

Is it possible that Asians are innately superior to Whites in intelligence? Consensus exists that the heritability of intelligence is high (Vernon, 1982). However, to fully address this question, it is necessary to demonstrate that Asian Americans are higher not only in educational attainments but also in intelligence and cognitive functioning. Unfortunately, few studies have compared these groups on intelligence measures. After examining studies on IQ test performances, Sowell (1978) concluded that Chinese and Japanese Americans equal or exceed the national average. In a review of intellectual test results for Chinese and Japanese Americans, Vernon also argued that these two groups were superior. However, sample sizes for the reviewed studies were small, and estimates were based on performance rather than on verbal tests, inasmuch as English is not the first language for many Asian Americans—a major limitation in making ethnic comparisons.

Because only small samples of Asian Americans are available, investigators have examined the question of racial differences in intelligence by studying overseas, or foreign, Asians. In 1977, Lynn calculated the mean IQ of Japanese in Japan from standardization studies of the Wechsler (1949, 1955) tests in Japan. Using only the performance subtests, he found that at every age level the Japanese children outperformed the Americans. He discounted other explanations such as test bias and environmental advantage. Lynn (1977) reasoned that because the tests were developed in the United States, it is unlikely that they would be biased in favor of the Japanese. Furthermore, at the time Japanese had lower per capita income than did Americans. Lynn concluded that heredity plays an important role in explaining the group differences. The conclusion was refuted by other investigators, especially Flynn (1982), who reanalyzed Lynn's data. He criticized Lynn for a variety of reasons, but particularly for not taking into account the yearly average gains in IQ that have occurred; the American norms used to compare with Japanese performances were established several years earlier. In addition, Flynn noted that Lynn vacillated between using Whites and all Americans (Whites and other ethnic minority Americans) as the standard by which to compare Japanese performances. By correcting for these factors, Flynn found little differences in IQ performance between Americans and Japanese. The debate between the two investigators has continued (see Flynn, 1987; Lynn, 1987). It has highlighted the methodological and conceptual problems in cross-national studies of intelligence and has revived the controversies regarding the meaning of intelligence, methods to estimate intelligence, and validity of instruments. In view of the problems, the hereditary perspective has received little empirical support.

The most extensive work on cross-national comparisons in intelligence has been conducted by Harold Stevenson and his colleagues (Stevenson & Azuma, 1983; Stevenson, Lee, & Stigler, 1986; Stevenson et al., 1985; Uttal, Lummis, & Stevenson, 1988). Stevenson et al. believe that Lynn failed to take into account the fact that the Japanese samples tended to have higher socioeconomic standing and a higher representation of urban than rural children than did the American samples from which the norms were constructed. Stevenson wanted to use a direct approach to comparing cognitive abilities. First and fifth graders in Japan, Taiwan, and United States were carefully selected and matched on demographic variables. Cognitive measures—verbal and performance tests were devised with considerable attention to task equivalence and appropriateness for the different cultures and languages. Achievement tests for mathematics and reading were also constructed. Reliability for the measures was found to be generally good. Results on the cognitive measures revealed a few group differences on subtests, but no overall difference in intelligence. Distribution and variability of scores were similar for each sample. On mathematics achievement tests, Chinese performed well, whereas Americans had relatively low scores.

Cognitive performance was a fairly good predictor of mathematics achievement scores but not of verbal scores. There were no general differences in cognitive functioning between the samples, and superiority of Asians in math was not attributable to higher levels of cognitive functioning among the Asian samples. Obviously, group differences in complex characteristics or behaviors such as intelligence may be attributed to the interaction of innate characteristics, cultural roots, and other environmental conditions (Greenfield & Childs, in press), but the hypothesis that Asians are genetically superior in intelligence would appear to be refuted by empirical data.

Culture

The other major explanation for the achievements of Asian Americans is cultural in nature. Cultural institutions, such as schools, may affect learning and performance. For example, in their extensive observations in the three societies, Stevenson, Lee, and Stigler (1986) found that U.S. schools spent less time on academic activities, U.S. teachers imparted less information, and there was less emphasis on homework in U.S. than in Chinese or Japanese schools. However, in explaining the achievements of Asian Americans, differences in school experiences cannot fully account for the high achievement levels of Asian Americans, especially those born and educated in this country.

The most popular cultural view is that Asian family values and socialization experiences emphasize the need to succeed educationally. Largely on the basis of anecdotal and observational evidence rather than on empirical findings, investigators have identified the following values or practices in Asian families that may promote educational achievements: demands and expectations for achievement and upward mobility, induction of guilt about parental sacrifices and the need to fulfill obligations, respect for education, social comparisons with other Asian-American families in terms of educational success, and obedience to elders such as teachers. From structured interviews with Asian-American students, Mordkowitz and Ginsburg (1987) provided anecdotal support for a cultural interpretation involving family socialization for high achievements. The students reported that their families emphasized educa-

Table 2
Contrasting the Cultural and Relative Functionalism Perspectives

Culture	Relative functionalism	
Assumptions and pre	edictions	
Cultural values can aid, be irrelevant to, or hinder educational pursuits. Asian-American values foster educational achievements. Asian cultural values are directly related to educational achievements. With increased acculturation, educational achievements decline.	Asian-Americans experience and receive limited mobility in noneducational areas of success. The greater the limitations in noneducational areas, the more salient education becomes as a means for mobility.	
Research task	S	
Identify relevant cultural values and correlate with educational achievement over time.	Examine perceptions of mobility in noneducational areas; correlate perceptions with educational pursuits and priorities.	
Societal implicat	ions	
Inculcate in others those Asian American values that facilitate educational achievements.	In addition to cultural values, the status and situation of Asians in American society must be studied.	

Note. The relative functionalism perspective does not disagree with the assumptions, tasks, and implications of the cultural thesis. It simply adds another dimension to explain the achievements of Asian Americans.

tional accomplishments, held high expectations for achievements, controlled the behaviors of the students, and considered schooling very important. Such anecdotal evidence about Asian culture and socialization practices must be tempered. Culture is a concept that has been used to explain all phenomena, but one that is difficult to define and to test.

A cultural interpretation proposes that socialization patterns and institutional practices within a culture can aid, be irrelevant to, or hinder educational pursuits. Hard work, respect for education, and the motivation to become educated, among other traits, foster academic success. In the cultural model, the research task is to identify relevant cultural values and practices and correlate them with educational attainments. Three implications are generated by the model, as shown in Table 2. First, cultural factors (e.g., child-rearing practices, and socialization experiences characteristic of the cultural group) should correlate strongly with achievement levels. Second, with increased acculturation to mainstream American values (and extinction of Asian cultural values), achievement levels should diminish. Third, to improve educational attainments for all groups, Americans should selectively adopt certain Asian cultural values. Certainly, the American business community has explored alternative corporate practices, often modeling after the Japanese, who are perceived as being successful economic and business entrepreneurs.

Despite much anecdotal speculation, few rigorous studies have tested the cultural thesis, and available research provides little support. In examining possible cultural factors in achievements, Dornbusch and colleagues (Dornbusch, Prescott, & Ritter, 1987; Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Ritter & Dornbusch, 1989) have recently reported on their ongoing investigations of thousands of high school students in California, including one of the largest population of Asian Americans ever surveyed. The project investigated the relation between family variables and academic achievement for various ethnic minority groups. Several interesting findings that have relevance for our discussion emerged from the rich data collected. First, Asian-American students exhibited the highest grade point average among all groups, including Blacks, Latinos, Whites, and others. Second, on the basis of the responses to the questionnaires, students from the ethnic groups were compared on the type of family in which they had been reared: Parental communication patterns that foster unquestioning obedience to parents (authoritarian style), freedom for the child to choose what to do with minimal parental involvement (permissive), and expectations for mature behavior and encouragement of open two-way communications between parents and children (authoritative). Asian-American students came from families high on authoritarian and permissive and low on authoritative characteristics, the opposite of White students. Their parents also had the lowest level of parental involvement among the groups studied. Third, for all groups and irrespective of social class, authoritarianism and permissiveness were inversely related, whereas parental involvement was directly related to academic achievements. (Parenting style, however, was a weaker predictor of grades for Asian than for Whites.) Thus, the very characteristics associated with the Asian-American group predicted low academic achievements for all groups; yet, Asian-American students had higher levels of academic achievements. The results suggest that although parenting styles may account for within-group achievement levels for Asian Americans, they fail to explain between-group differences (i.e., between Asian Americans and the other groups). The findings do not support the cultural hypothesis that Asian Americans differ from other groups in achievements because of differences in upbringing. Although ethnic differences in parenting styles do exist, they fail to account for the observed ethnic differences in achievements.

Other variables examined by the investigators did not reveal group differences. Asian-American responses were not significantly different from the other groups on reasons cited for working hard, parental pressures for achievement, need for making parents proud, not embarrassing family, and sacrifices made by the family for educational pursuits, variables that have often been used and supported by anecdotal examples to explain Asian achievements. Only on one response was there a significant group difference: Asian Americans were more likely to believe that success in life has to do with the things studied in school. This belief was directly related to high school grades. The inability to find variables that could explain the success of Asian-American students led the investigators to conclude that "Something associated with being Asian is having a positive impact on school performance independent of the family process variables that may work so well in predicting performance among Whites" (Ritter & Dornbusch, 1989, p. 7).

The findings, of course, do not invalidate a cultural explanation. Perhaps other family or socialization variables are important, singly or in combination, and more studies should be conducted. However, the difficulty in finding cultural factors that strongly correlate with

Asian-American achievements and that can serve as an explanation for differential achievement patterns is troublesome for such a widely held thesis. It is not that "culture" is unimportant. If one excludes genetic factors as a significant determinant of the higher levels of achievement attained by Asian Americans, then some features of the culture are likely to play an important role. Because not all cultural differences will be germane, the challenge is to determine those features that are relevant to educational achievement for that culture. The evidence suggests that proximal values such as the importance of study and working hard, rather than distal values and behaviors such as socialization practices, may be important predictors of achievement. Moreover, cultural values do not operate in a vacuum. By focusing on Asian cultural as well as hereditary explanations, important contextual factors in the larger society are ignored. We propose that cultural values are weakly related to achievement, inasmuch as cultural values are often too global, or distal to achievements. A better model would posit that cultural values or socialization patterns affect a mediator (a more proximal variable such as effort or motivation), which is likely to show a stronger correlation with achievements. The mediator is also influenced by other variables, besides culture, such as opportunities for advancement in other areas of life.

Relative Functionalism

The academic achievements of Asian Americans cannot be solely attributed to Asian cultural values. Rather, as for other ethnic minority groups, their behavioral patterns, including achievements, are a product of cultural values (i.e., ethnicity) and status in society (minority group standing). Using the notion of relative functionalism, we believe that the educational attainments of Asian Americans are highly influenced by the opportunities present for upward mobility, not only in educational endeavors but also in noneducational areas. Noneducational areas include career activities such as leadership, entertainment, sports, politics, and so forth, in which education does not directly lead to the position. To the extent that mobility is limited in noneducational avenues, education becomes increasingly salient as a means of mobility. That is, education is increasingly functional as a means for mobility when other avenues are blocked. Several propositions are apparent. First, similar to the cultural explanation, relative functionalism assumes that there is in any particular group a drive for upward mobility and that cultural values and practices can affect educational attainments. Second, when opportunities for upward mobility are limited or are perceived to be limited in other areas, educational achievements should increase. This is particularly true with groups that are culturally oriented toward education and have experienced academic success. Third, trying to change American educational values and practices in the direction of Asian values may result in only small increments in educational attainments, inasmuch as mainstream Americans have other avenues of mobility.

Table 2 contrasts the assumptions made by the cultural and relative functionalism perspectives. In the cultural interpretation, investigators traditionally assume that some ethnic groups have cultural values that match or fit the society in which they live. For example, in the classic book Assimilation in American Life, Milton Gordon (1964) argued that the extraordinary achievements of Jews in this country can primarily be explained by cultural, middle-class values such as thrift, sobriety, ambition, and ability to delay immediate gratification for longrange goals. Sue and Kitano (1973) have also found that many social scientists attribute the educational success of Chinese and Japanese Americans to cultural values that promote upward mobility in this country-values that emphasize hard work, family cohesion, patience, and thrift. However, many Asian values such as emphasis on the collective rather than on the individual, hierarchical role structures rather than egalitarian relationships, and respect for authority are not fully consistent with White, middle-class values (Hirschman & Wong, 1986). Another problem with the cultural explanation is that cultural values are not necessarily predictive of educational attainments. As noted by Ogbu and Matute-Bianchi (1986), the Chinese in China, presently and in the past, have not shown relatively high rates of educational attainments and literacy. This has led investigators to question why children of Chinese peasants do so well in American schools in contrast to their peers in China. Indeed, in mainland China, where intellectuals are under increased

scrutiny, receive inadequate salaries, and find other jobs more financially rewarding, we see a decline in the proportion of students applying for admission into graduate programs in that country.

As argued by Steinberg (1981), cultural values interact with conditions in any particular society. In the case of Jews, he noted that

In terms of their European background, Jews were especially well equipped to take advantage of the opportunities they found in America. Had Jews immigrated to an industrial society without industrial skills, as did most other immigrants, their rich cultural heritage would have counted for little. Indeed, a parallel situation exists today in Israel, where Jews immigrating from underdeveloped countries in North Africa typically lack the occupational and educational advantages of the earlier settlers, and despite the fact that all share the same basic religion, the recent immigrants find themselves concentrated at the bottom of Israeli society. Thus, in large measure Jewish success in America was a matter of historical timing. That is to say, there was a fortuitous match between the experience and skills of Jewish immigrants, on the one hand, and the manpower needs and opportunity structures, on the other. It is this remarkable convergence of factors that resulted in an unusual record of success. (p. 103)

In the case of Chinese and Japanese Americans, Suzuki (1977) has also taken issue with a cultural interpretation of their success. Although acknowledging that respect for education is a cultural value among these two groups, he also advanced the proposition that Asian Americans came to pursue education because of their status as a minority group. Many labor unions discriminated against Asians, refusing them union membership during the 1940s. In addition, technological advancements and an expanding economy after World War II required educated professionals and white collar employees. Thus, one development limited occupational opportunities for manual laborers and the other placed a premium on professional-technical skills requiring advanced education. In such a situation, mobility through education took increased significance, above and beyond the contributions of Asian cultural values. Using a similar argument, Connor (1975) attributed the high educational attainments of Japanese Americans to the denial of opportunities to participate in social and other extracurricular school activities in the pre-World War II period, This also set the stage for emphasizing educational achievements.

For relative functionalism to be a viable explanation, at least three issues must be addressed. First, relative functionalism and the cultural thesis would predict decreasing educational achievements with acculturation of Asian Americans. However, each differs in the factors that account for decrements in performance. One proposes that increased opportunities for mobility make education a less preferred avenue for mobility, whereas the other assumes that a loss of cultural values is responsible for decreased achievement levels. Is there evidence that opportunities for mobility influence achievements? Second, relative functionalism assumes that limitations in mobility in noneducational endeavors influences educational levels. Is it possible that educational values and attainments affect interest or performance in noneducational means of mobility? Third, is there evidence that Asian Americans perceive or experience limitations on non-educational avenues for mobility?

Unfortunately, critical tests comparing the cultural and relative functionalism models have not been conducted. Dornbusch et al. (1987) and Ritter and Dornbusch (1989) have found that Asian-American achievement levels tend to be inversely related to the number of generations in the United States, apparently supporting a cultural interpretation (i.e., decreased maintenance of Asian cultural values results in lower academic grades). With increased acculturation, it has been assumed that Asian values of hard work, discipline, and respect for education have eroded. However, an inverse relation between acculturation to American values and academic achievements is not incompatible with relative functionalism. Increased acculturation also results in more avenues for mobility. For example, Sue and Zane (1985) found that recent Chinese immigrants were significantly more likely than were acculturated Chinese to agree with the statement that their choices of academic majors were influenced by their English skills. These students had low English proficiency, averaging in the 18th percentile on the verbal portion of the Scholastic Aptitude Test. They confined their selection of majors to fields requiring quantitative skills (e.g., mathematics and computer sciences) rather those requiring more sophisticated English proficiency (e.g., social sciences and humanities). Increased English proficiency is likely to be related to knowledge of American society and ways of getting ahead, which may ultimately decrease the relative

value of education as a means of mobility. In addition, it is highly likely that the recent immigrants perceive career limitations and, therefore, avoid those fields such as the social sciences and humanities, in which English facility and interpersonal skills specific to American society are needed. Mathematics and sciences are more likely to emphasize technical competence. Here we have an example of directing educational pursuits because of perceived limitations in certain career areas.

With respect to the other questions involving cause-effect (Do educational achievements limit interest or pursuit of noneducational endeavors, or do limitations in these endeavors influence educational pursuits?) and perceptions of limitations in noneducational avenues, no studies have directly examined the issues. Obviously, if Asian Americans perform well in education and consequently assume professional and technical positions, they may be more motivated to continue this pattern of mobility. They may even deemphasize activities in such areas as sports, the entertainment industry, and political positions because they have been successful in securing education-based careers. However, there is evidence from various sources that many Asian Americans perceive limitations in their career choices or upward mobility because of English language skills or social discrimination (Sue, Sue, Zane, & Wong, 1985). In a survey of Asian-American students at the University of California, Berkeley, Ong (1976) found that respondents cited as reasons for obtaining an education (a) ability to make money, increasing the chances for a better job, and (b) the difficulty in finding other avenues for advancement because of discrimination. Hirschman and Wong (1986) have argued that "Education was a channel for the social mobility of Asians, partly because they were frozen out of some sectors of the economy" (p. 23). Hearings sponsored by the U.S. Commission on Civil Rights (1980) resulted in testimonies that documented restrictions in occupational mobility, especially for those without much education (Pian, 1980; Wang, 1980). The point is that education is perceived as a viable means for mobility, in view of limitations for success in other areas. Thus Asian Americans expend great efforts in attaining an education because they have been successful and also because without a strong educational background, their mobility is limited. Research strategies that focus on the relation between cultural values and education provide an incomplete picture.

If Asian Americans encounter and perceive restrictions in noneducational areas of mobility, as do other ethnic minority groups such as Blacks and Latinos, why do these other ethnic groups fail to adopt education as a means of mobility? Addressing this question—and that poses a real challenge—is beyond the scope of this article. It is worth noting that ethnic minority groups have different cultural backgrounds and different historical and contemporary experiences in the United States. Precisely because of the importance of the interaction between culture and minority group status, we maintain that cultural interpretations of the success of Asian Americans are inadequate.

More specifically, Ogbu and Matute-Bianchi (1986) have proposed that individuals develop folk theories of success (e.g., "If I get a good education, I will succeed in getting a good job and maintain a high standard of living" or "Even if I get a good education, people will discriminate against me"). Factors such as cultural values, discrimination, past success, beliefs in self-efficacy, availability of successful role models, and so on, influence the folk theories. Mickelson (1990) has found that although Blacks hold favorable abstract attitudes concerning the value of education, they are less likely than Whites to believe in the value of education in their own lives. As mentioned previously, Ritter and Dornbusch (1987) found that Asian Americans tended to believe that success in life has to do with the things studied in school. The folk theory for Asian Americans may be, "If I study hard, I can succeed, and education is the best way to succeed."

Conclusions

In trying to explain the educational success of Asian Americans, the tendency has been to compare and contrast genetic and cultural explanations. Because the evidence does not support a genetic interpretation, many have simply assumed that Asian cultural values, beliefs, and practices are responsible for their academic achievements. In contrast, we have suggested that the effects of culture have been confounded with the consequences of our society. Although culture is certainly an important factor in

achievements, education has been functional for upward mobility, especially when participation in other arenas, such as sports, entertainment, and politics, has been difficult. One could argue that educational success, increased numbers of educated Asian role models, and limitations in mobility in other areas contribute to performance, above and beyond that which can be predicted from Asian cultural values.

Several implications can be drawn from our analysis. First, studies that examine the relation between cultural values and achievements may yield low correlations, inasmuch as achievement patterns are influenced by many factors. These factors may influence mediators of achievement such as motivation and effort. Second, attention should be paid to individual differences within the Asian populations. Although cross-national studies may provide significant insights for studies of Asian Americans, it should be recognized that the social context of overseas Asian and Asian Americans differs quite dramatically, particularly in majorityminority group status and in societal values and practices. Differences among Asian Americans are also important to consider. For example, Sue and Abe (1988) examined predictors of educational performance among thousands of Asian-American and White students. Regression equations significantly differed not only between Asian Americans and Whites but between some of the different Asian groups (Chinese, Japanese, Koreans, Filipinos, and East Indians/ Pakistanis). Dornbusch et al. (1987) have also found important differences in school acculturation and achievement patterns among various Asian-American groups. Third, in predicting educational achievements, investigations into perceptions, expectancies, and beliefs over opportunities for other areas of mobility may be important. Perhaps the greatest problem in the research is the failure to study the phenomenon of mobility in general, because educational attainments may be strongly influenced by these other avenues for mobility. Finally, some have objected to the notion that Asian Americans are a "minority" group, precisely because they have become well educated. From our perspective, Asian Americans are indeed a minority group and their achievements can be fully understood only if attention is paid to their experiences in society.

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