Recently William Shockley (1971) proposed once again that there should be full scale studies of genetics and intelligence. He believes that "there is a direct, quantifiable correlation between I.Q. and percentage of Negro ancestry." In conjunction with another project Green (Green & Martinez, 1967) obtained a set of data that is relevant to this claim. The data give the claim no support whatsoever. Rather, the data are consistent with the often stated counterclaim that lower IQ among blacks can be fully accounted for by the fact of discrimination against blacks.

Other efforts of this kind have been made, but they have generally produced equivocal results. Tyler (1965) reviewed such studies and made two comments. One was that this is a "minor" problem and the other that "it is probably best, however, to draw no conclusion with regard to this problem [p. 323]." The decision to make public the set of data reported here is based on the fact that there are several factors relating to it and to the population from which it was obtained which make it unique; the author believes it will be more likely to produce some insight into the problem than generally has been true in the past.

METHOD

Subjects

The Ss were all members of a stratified random sample of people, ages 16-64, who served as the standardization sample for a large project to translate and adapt into the Spanish language and culture and to standardize the WAIS in Puerto Rico (Green & Martinez, 1967). Stratification was on both urban-rural residence and region of the island. Randomness within strata was present on the age, education, occupation, and race (color) variables. All variations in the characteristics of the sample from 1960 census data that occurred were in every case in the direction of known population trends. This is one of the important characteristics of this sample that should be emphasized. It is the most representative sample of a well-defined total population that has been obtained for any similar study.

Procedure

In order to study "racial" differences, the sample was divided into five color groups. When the standardization sample was drawn it was felt that it would be impossible to stratify the sample on color. As a substitute, the test administrators were carefully trained on ratings of color to use (using models known to all) and each person tested was assigned a rating from 1-5. Group 1 consisted of apparently pure white individuals and Group 5 consisted of the darkest and almost certainly the most purely Negro individuals in the sample. It is, of course, probable that the presence of other racial characteristics would have influenced the examiners' judgments to some extent. Even so, the project personnel felt quite confident that the groups would in fact be rather distinctly different in their mean color and in the percentage of "Negroess" implied. To lend credence to this belief, one should mention that all examiners were Puerto Ricans and the examiners themselves represented the first four color groups. A Group 5 examiner was retained, but dropped out of the project early.

The name, address, age, occupational status, and amount of schooling of each S in the standardization sample were given to an examiner who then contacted the individual and requested permission to test him and offered a $3.00 fee for cooperation. Approximately 96% of the Ss contacted cooperated. A number of individuals were lost to the study because of death, emigration, etc., but were replaced by similar cases from an auxiliary random sample. Because of the importance of these variables, Ss' reports of number of years of schooling and occupation as given independently to the examiner and to a Department of Labor interviewer were compared. Exact agreement in over 99% of the cases indicated reliability of reports in terms of repeatability.

RESULTS

The number of individuals appearing in each color group is presented in Table 1. The proportional breakdown of the five groups probably represents the best estimate of the color line that is available for Puerto Rico.

The results are presented in Table 1. The mean ages of the five groups were all quite similar. There was an apparent relationship between color and number of years of education completed. A one-way analysis of variance was not significant, but if Group 5 is contrasted against a pool
of the other four groups the result is significant. Occupational status was significantly related to test scores among the employed. Occupational status was coded in terms of the rankings used by the United States Government Census Bureau in classifying people according to occupational groups. There appears to be some tendency for the whites to have the higher positions and the blackest to have the lowest.

An inspection of the test score results shows that there were in fact some differences between some of the color groups. Groups 1 and 2 were virtually identical on all 14 test variables. Group 3 was very similar to Groups 1 and 2 on all 14 variables. No statistically reliable differences existed among any of Groups 1, 2, and 3 on any of the test variables or education. Group 4 tended to be reliably lower than Groups 1 and 2 on the Verbal scores and the Full Scale total. Group 5 was generally lower than Groups 1, 2, and 3 on the Verbal scores and on the Full Scale total.

Note carefully that the trend line is virtually flat through the first three groups and then turns downward to Group 4 and then even more steeply downward to Group 5. In fact, Group 5 typically is as far below Group 4 as Group 4 is below Group 1. The overall F ratio was significant on five of the six Verbal subtests, the Verbal total, and the Full Scale total. It was significant on only one of the Performance subtests and not on the Performance total. Note that the spread of scores spanned only 7 IQ points instead of the 15-20 that are commonly observed in the United States. Finally, one should note the very close relationship that appears between the mean education of the five groups and the means of the three total scores.

**DISCUSSION**

To fully appreciate the significance of these results one has to know certain facts about the Puerto Rican population and culture. Racial mixing has been going on in Puerto Rico for some 400 yr. All degrees of mixtures between whites and blacks (and to some small extent Indians) have existed in Puerto Rico for almost four centuries. During that span these people have lived together, worked together, gone to school together, and have experienced many things that are neither seen nor accepted to any great extent in the United States. Obviously, one of these is intermarriage of whites with mates of quite different skin color. Another is the rather common sight of one or two light-skinned parents with one or more dark-skinned children.

Within this setting, most Puerto Ricans certainly harbor less racial prejudices than exist in most populations. In fact, most Puerto Ricans will insist that there is no racial prejudice at all among the natives of the island. One does not have to look long to find that some remnants of prejudice do in fact remain. Some Puerto Ricans are willing to recognize it and to talk or write about it. For instance, Albizu-Miranda, Matlin, and Stanton (1966) stated:

In Puerto Rico, negroness is seen as a continuum. It is a characteristic which one may have to a varying degree. . . . If you want to see the degree of negroness a person has, you give him a test . . . you look at the color of his skin.

It comes as no great shock to the Puerto Ricans to find that one of his children is negro. He is sometimes dismayed that this child will have poorer life than he would otherwise. But he finds nothing conceptually difficult in the situation; it occurs frequently enough.

Even so, it is undeniably true that there is much less racial prejudice in Puerto Rico than in the United States. The Negro can more easily gain acceptance in virtually all social and in virtually all economic settings.

The numerically dominant segment of the Puerto Rican population is nonwhite—about 3% white vs. 77% nonwhite. Some 38% can be called light even though clearly not white. This is the largest segment of the population and for many Puerto Ricans it is regarded as the preferred status. Certainly this group escapes virtually any semblance of discrimination by the native population. For all darker groups there is an increasing possibility that they will meet at least some subtle discrimination. It is at worst a more subtle and much less intense than experienced by even the lightly colored person in the United States. Since this is so, we can reasonably suspect that if differences in intelligence are at least partly culturally determined, then either no differences in intelligence test scores will prove to be related to skin color or any differences that might occur will be much smaller than are commonly observed in the United States.

The cultural contrast between the United States and Puerto Rico is very important to the interpretation of these results. In much of the United States, if a person is recognizable as having any Negro in his inheritance, then he is treated as if he is all Negro. This has resulted in there being little detectable difference in IQ levels among “Negros” of varying degrees of darkness. In contrast to this, the Puerto Rican does not regard the Color Groups 2 and 3 as defined in this study as “Negro.” They are Puerto Rican. Color Group 4 may or may not be considered to be “Negro” depending on presence or absence of other traits such as hair texture or eye color. Color Group 5 is very likely to be considered to be “Negro.” From the results reported here, it can reasonably be concluded that there are some residual cognitive test differences between individuals in Puerto Rico who are regarded as being Negro and those who are not regarded as being Negro. Among color groups who are not regarded as being Negro, reliable differences in IQ do not occur.

The Puerto Rican result shows very clearly that changes in mental ability scores tend to follow the prejudice line much more closely than the genetic line, if it follows the latter at all.

**REFERENCES**


