HUMAN INTELLIGENCE

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programs exist that distinguish among them in a variety of ways. As a consequence, the government keeps extensive statistics on characteristics of their health, education, and economic status. It is often important to consult these statistics in order to untangle issues due to collinearity.

Finally, a word about terminology.

Anyone who attempts to name racial/ethnic groups in the United States is shooting at a moving target. W. E. B. Du Bois (1868–1963), a leading social activist of the 1900–50 period and one of the founders of the National Association for the Advancement of Colored People (NAACP), referred to himself as a Negro. The term is proscribed today. The term "colored people" is part of the NAACP's name, but is now also proscribed. However, the term "people of color" is appropriate, at least as of 2010.

I will use the terms *African American* and *Black* interchangeably unless, of course, I am referring to a group outside the United States. In present US government documents *Hispanic* or *Latino* is used to refer to US residents who are immigrants from, or descendants of immigrants from, a Spanish- or Portuguese-speaking country in the Western Hemisphere. The term is also used for descendants of the Spanish/Mexican people who settled in California and the Southwest prior to the 1840s. Surprisingly, the government does not include in this term people whose family origin was Spain or Portugal, although this policy seems to be applied inconsistently. I will follow government usage, as it exists in 2010.

While I shall have to use the term *Asian-American* at times, especially when referring to government records, I will attempt to refer to more specific groups, such as the *Japanese*, as I believe that the current official designation *Asian-American* is far too broad.

White will be my catch-all term for all other groups. These are primarily American residents of European descent. There are substantial communities who have cultural and genetic ties to Armenia, Georgia, Iran, Israel, and other Middle Eastern nations, but they are all European-Americans to the US census! When appropriate I will refer to specific communities within the broad Asian and White designations.

11.4.3. *Test Score Gaps between Whites, African Americans, and Hispanics*

There is a long history of studies of racial/ethnic differences in test scores. In their 1975 review Lindzey, Loehlin, and Spuhler, citing earlier data by Yerkes, reported that in 1917–18, during World War I, the mean score on the Army tests for White recruits was 1.16 standard deviation units above the mean for African American recruits. Studies of enlistees in World War II and the Vietnam War[129] showed a 1.52 mean difference in favor of Whites. Lindzey and colleagues were careful to point out that this is not evidence that the Black-White differences in intelligence had increased from 1918 to the 1960s, because military enlistees are not a representative sample of the country, and because different recruitment/conscription standards were in effect in the two wars. However this is certainly not evidence for a presumed reduction in the difference!

In order to make a comparison between the scores of different groups we need to have data from a representative sample of the national population. Table 11.4 presents the results from several such surveys involving battery-type tests. There is some variety in the results, but not a great deal. The African American means are about 1 standard deviation unit (15 points on the IQ scale) below the White means, and the Hispanic means fall in between.

A similar picture is obtained from comparisons involving the Raven Progressive Matrices (RPM) tests. Figure 11.21 shows the median RPM test score obtained in a school district in the western United States, as a function of age and racial/ethnic group.[130] We see the same picture reflected in the scores on battery-type tests. Whites outscore African

129 Lindzey, Loehlin, & Spuhler, 1975, p. 143.
130 Raven, 2008a. J. Raven has recommended reporting RPM scores as percentiles, rather than in terms of summary statistics, such as means and variances. See Raven, 2008b, p. 60 (note 1.55), for a justification.

Table 11.4. Values of (White mean − African American mean) and (White mean − Latino mean) in standard deviation units for a variety of cognitive tests, using cases where a reasonably large standardization sample has been obtained

Population	Test Used	African American	Latino	Reference
WAIS III adult standardization	WAIS General Ability Index	.95	.65	Lange et al., 2006
NLSY79, men	AFQT	1.07		Scullin et al., 2000
NLSY79, women	AFQT	1.00		Scullin et al., 2000
NLSY79, all groups	AFQT	1.2	.93	Herrnstein & Murray, 1994, pp. 275, 278
Standardization sample	Wide Range Intelligence Test	.85	.51	Shields, Konold, & Glutting, 2004
Standardization sample	Woodcock-Johnson 3: General Intellectual Ability	1.05		Murray, 2007

Americans, and Hispanic scores fall somewhere in between.

In order to avoid recruitment effects, Table 11.4 cites studies using relatively large samples, where an attempt was made to obtain a sample representative of a defined population. The samples involved cover a wide range of people, from the five to sixty-five years age range in the Woodcock-Johnson standardization sample to the schoolchildren studied in the RPM standardization. Similar results can be found by averaging over the more than 150 studies that have used convenience samples.[131]

Similar differences are found internationally. Historically there have been a number of studies comparing Whites to other racial/ethnic groups in a variety of countries. Because there have been major changes in the economic and health status of many developing countries, the best course is probably to look at the recent literature rather than at that of over thirty years ago.

J. P. Rushton, Lynn, and a number of their colleagues have conducted a wide-ranging series of studies in which they use the Raven Progressive Matrices tests to evaluate group differences within various countries. All obtain the general results observed on the Raven standardization. Whites do better than Blacks, with other ethnic groups somewhere in between. The studies involved include a Roma–Serbian contrast in the Balkans,[132] White–Indian–mixed race–Black contrasts in South Africa,[133] and a contrast between Whites, Mestizos (mixed White–Native American), and Native Americans in Mexico.[134] In all these studies Whites and Asians obtain the highest scores, and Blacks the lowest, with other racial/ethnic groups falling in between.

The Mexican study provides a good example of this work, because it is somewhat more extensive than several of the other studies. Lynn and colleagues tested elementary school children, aged seven to ten, near Ensenada, in the state of Baja California. The ordering of means was what the experimenters had anticipated: Whites (IQ equivalent ∼ 100), Mestizos (mixed Native

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131 Herrnstein & Murray, 1994, p. 277; Jensen, 1998, p. 354. The Herrnstein and Murray citation gives references to specific studies. Jensen's citation does not, but it apparently refers to an analysis that he conducted.

132 Rushton, Cvorovic, & Bons, 2007.

133 Rushton & Skuy, 2000; Rushton, Skuy, & Fridjohn, 2003.
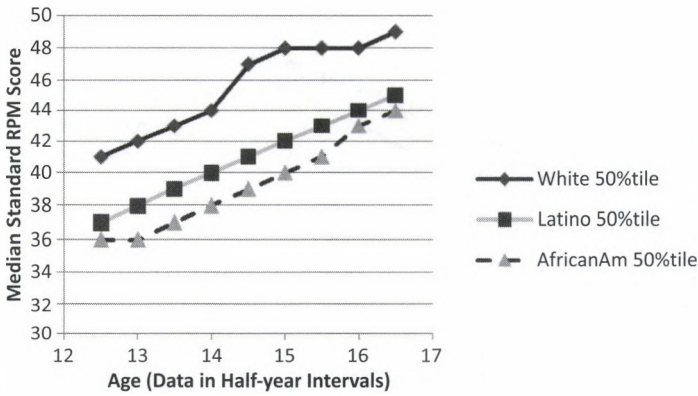
134 Lynn, Backhoff, & Contreras, 2005.

Figure 11.21. Raven Progressive Matrices scores in a school district in the western United States, as a function of age and racial/ethnic group. Data taken in the 1980s. *Source:* J. Raven, 2008b, Table 8.3.

American–White groups) (IQ equivalent ∼ 95), and Native Americans (IQ equivalent ∼ 83). (See Figure 11.22.) The authors point out that these results resemble those obtained in the United States, where Mexican immigrants have scores below Whites, and Native Americans tend to have still lower scores. The differences were substantial. Seven-year-old White and Mestizo children solved progressive matrix problems at a level not obtained by Native American children until they are nine or ten.

Lynn and colleagues' results for Mexicans in Mexico can be compared to Raven's results for Latinos in the southwestern United States. This is done in Figure 11.23, which shows a striking continuity in changes

of test scores across ages, within each ethnic group.

Because the Raven tests are often referred to as measures of *g*, there is a temptation to interpret these results as showing that White populations possess general intelligence to a greater degree than nonwhite populations living in close proximity to the White groups. As Lynn himself has indicated, it is not appropriate to draw such a conclusion based on results from a single test. However, similar results implicating differences in *g* have also been found in European studies that used batteries of subtests designed to evaluate narrow cognitive functions. The populations compared included children from different immigrant
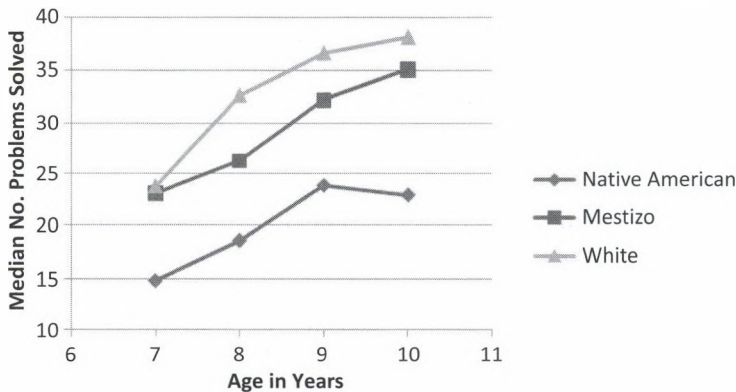

Figure 11.22. The median number of Raven's Standard Progressive Matrices problems solved by Native American, Mestizo, and White children in Mexico. Data from Lynn, Backhoff, & Contreras, 2005, Table 2.
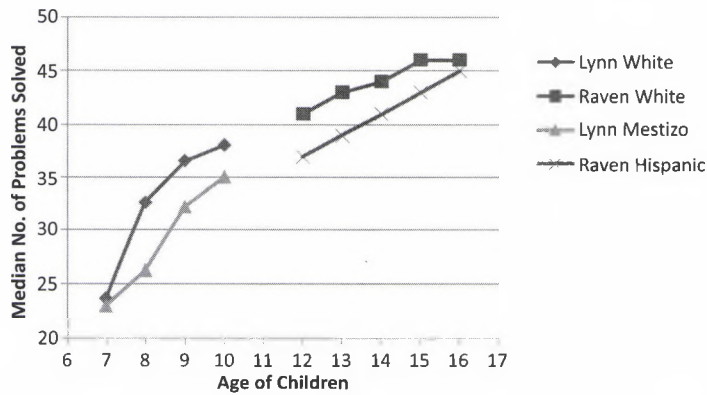
Figure 11.23. Median number of problems solved as a function of age and ethnicity. Data from Raven, 2008a, Table 8.2 (half-year intervals) and from Lynn, Backhoff, & Contreras, 2005, Table 2.

groups in Europe and adult immigrants from the Netherlands Antilles compared to native Dutch employees in the railway system in the Netherlands.[135]

11.4.4. *A Closer Look at the Nature of Racial/Ethnic Differences*

In the middle of the twentieth century a study was done on variations in first-grade children's intelligence that were associated with ethnic status and social class (SES).[136] The authors concluded that the level of intelligence was associated with SES, and that there were patterns of differential ability associated with ethnic groups. Asians were said to have high spatial ability, and Jewish children to have high verbal abilities. Since that time there have been several efforts to determine the nature of the differences in the intelligence of various racial/ethnic groups, beyond the omnibus statement that test scores vary from group to group.

Most of these studies have been presented as investigations of "Spearman's hypothesis." The strong version of this hypothesis is that all intergroup differences in intelligence are due to differences in general intelligence. The weak form is that the majority of these differences are due to general intelligence,

but that differences in lower-order factors (e.g., verbal and spatial-visual reasoning) may also contribute to group differences.[137]

Jensen summarized a number of studies testing Spearman's hypothesis that had been carried out through about 1995 using the method of correlated vectors. He concluded that the correlation between test loadings on a *g* factor and the Black-White differences in test scores is about .60, and considerably higher in some tests.[138] Jensen interpreted this as substantial support for the weak form of Spearman's hypothesis. He further concluded that spatial-visual reasoning, which tends to show fairly large Black-White differences, was responsible for the remaining differences.

Subsequently the Danish psychologist Helmut Nyborg collaborated with Jensen on a large study of African American–White differences among Vietnam veterans.[139] Because conscription was used during the Vietnam War the study participants were somewhat representative of men from the cohorts born in the United States during the 1940s and early 1950s. Nyborg and his colleagues updated Jensen's review and published further data testing a White-Hispanic contrast in the Vietnam veteran population.[140] These studies also reported

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135 Helms-Lorenz, van de Vijver, & Poortinga, 2003; te Nijenhuis et al., 2004.
136 Lesser, Fifer, and Clark, 1965.

137 Jensen, 1998, p. 372.
138 Ibid., pp. 376 ff.
139 Nyborg & Jensen, 2001.
140 Hartmann, Kruuse, & Nyborg, 2007.