

Race and Crime: An International Dilemma

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In their magisterial *Crime and Human Nature*, J.Q. Wilson and R.J. Herrnstein noted that the Asian underrepresentation in U.S. crime statistics posed a theoretical problem. The solution proposed by criminologists as early as the 1920s was that the Asian "ghetto" protected members from the disruptive tendencies of the outside society. For blacks, however, the ghetto is said to foster crime.

The overrepresentation of blacks in U.S. crime statistics has existed since the turn of the twentieth century. The census of 1910 showed more blacks than whites in jail, in the north as well as in the south. Official figures from the 1930s through the 1950s showed that the number of blacks arrested for crimes of violence in proportion to the number of whites ranged from 6:1 to 16:1. These statistics have not improved in the interim.

Breaching a long taboo, liberals from Bill Clinton to Jesse Jackson have recently made it respectable to theorize about "black-on-black" crime. Conservative magazines like the *National Review* have also begun to discuss aspects of the race/crime link (see "Blacks...and Crime," May 16, 1994; "How to Cut Crime," May 30, 1994). What is yet to be acknowledged, however, is the international generalizability of the race/crime relationship. The matrix found within the United States, with Asians being most law-abiding, Africans least, and Europeans intermediate, is to be observed in other multiracial countries like Britain, Brazil, and Canada. Moreover, the pattern is revealed

in China and the Pacific Rim, Europe and the Middle East, and Africa and the Caribbean. Because the "American dilemma" is global in manifestation, explanations must go well beyond U.S. particulars.

I emphasize at the outset that enormous variability exists within each of the populations on many of the traits to be discussed. Because distributions substantially overlap, with average differences amounting to between 4 and 34 percent, it is highly problematic to generalize from a group average to a particular individual. Nonetheless, as I hope to show, significant racial variation exists, not only in crime but also in other traits that predispose to crime, including testosterone, brain size, temperament, and cognitive ability.

The global nature of the racial pattern in crime is shown in data collated from INTERPOL using the 1984 and 1986 yearbooks. After analyzing information on nearly 100 countries, I reported, in the 1990 issue of the *Canadian Journal of Criminology*, that African and Caribbean countries had double the rate of violent crime (an aggregate of murder, rape, and serious assault) than did European countries, and three times more than did countries in the Pacific Rim. Averaging over the three crimes and two time periods, the figures per 100,000 population were, respectively, 142, 74, and 43.

I have corroborated these results using the most recent INTERPOL yearbook (1990). The rates of murder, rape, and serious assault per 100,000 population reported for 23 predominantly African countries, 41

Caucasian countries, and 12 Asian countries were: for murder, 13, 5, and 3; for rape, 17, 6, and 3; and for serious assault, 213, 63, and 27. Summing the crimes gave figures per 100,000, respectively, of 243, 74, and 33. The gradient remained robust over contrasts of racially homogeneous countries in northeast Asia, central Europe, and sub-Saharan Africa, or of racially mixed but predominantly black or white/Amerindian countries in the Caribbean and Central America. In short, a stubborn pattern exists worldwide that requires explanation.

Testosterone and the Family

The breakdown of the black family and the strengths of the Asian family are often used to explain the crime pattern within the United States. Learning to follow rules is thought to depend on family socialization. Since the 1965 Moynihan Report documented the high rates of marital dissolution, frequent heading of families by women, and numerous illegitimate births, the figures cited as evidence for the instability of the black family in America have tripled.

A similarly constituted matrifocal black family exists in the Caribbean with father-absent households, lack of paternal certainty, and separate bookkeeping by spouses. The Caribbean pattern, like the American one, is typically attributed to the long legacy of slavery. However, the slavery hypothesis does not fit data from sub-Saharan Africa. After reviewing long-standing African marriage systems in the 1989 issue of *Ethology and Sociobiology*, anthropologist Patricia Draper of Pennsylvania State University concluded: "coupled with low investment parenting is a mating pattern that permits early sexual activity, loose economic and emotional ties between spouses...and in many cases the expectation on the part of both spouses that the marriage will end in divorce or separation, followed by the formation of another union."

The African marriage system may partly depend on traits of temperament. Biological variables such as the sex hormone testosterone are implicated in the tendency toward multiple relationships as well as the tendency to commit crime. One study, published in the 1993 issue of *Criminology* by Alan Booth and D. Wayne Osgood, showed clear evidence of a testosterone-crime link based on an analysis of 4,462 U.S. military personnel. Other studies have linked testosterone to an aggressive and impulsive personality, to a lack of empathy, and to sexual behavior. Testosterone levels explain why young men are disproportionately represented in crime statistics relative to young women, and why younger people are more trouble-prone than

older people. Testosterone reliably differentiates the sexes and is known to decline with age.

Ethnic differences exist in average level of testosterone. Studies show 3 to 19 percent more testosterone in black college students and military veterans than in their white counterparts. Studies among the Japanese show a correspondingly lower amount of testosterone than among white Americans. Medical research has focused on cancer of the prostate, one determinant of which is testosterone. Black men have higher rates of prostate cancer than do white men who in turn have higher rates than do Oriental men.

Sex hormones also influence reproductive physiology. Whereas the average woman produces 1 egg every 28 days in the middle of the menstrual cycle, some women have shorter cycles and others produce more than one egg; both events translate into greater fecundity including the birth of dizygotic (two-egg) twins. Black women average shorter menstrual cycles than white women and produce a greater frequency of dizygotic twins. The rate per 1,000 births is less than 4 among east Asians, 8 among whites, and 16 or greater among Africans and African-Americans.

Racial differences exist in sexual behavior, as documented by numerous surveys including those carried out by the World Health Organization. Africans, African-Americans and blacks living in Britain are more sexually active, at an earlier age, and with more sexual partners than are Europeans and white Americans, who in turn are more sexually active, at an earlier age, and with more sexual partners than are Asians, Asian-Americans, and Asians living in Britain. Differences in sexual activity translate into consequences. Teenage fertility rates around the world show the racial gradient, as does the pattern of sexually transmitted diseases. World Health Organization Technical Reports and other studies examining the worldwide prevalence of AIDS, syphilis, gonorrhea, herpes, and chlamydia typically find low levels in China and Japan and high levels in Africa, with European countries intermediate. This is also the pattern found within the United States.

International data on personality and temperament show that blacks are less restrained and less quiescent than whites and whites are less restrained and less quiescent than Orientals. With infants and young children observer ratings are the main method employed, whereas with adults the use of standardized tests are more frequent. One study in French-language Quebec examined 825 four- to six-year olds from 66 countries rated by 50 teachers. All the children were in preschool French-language immersion classes for immigrant

children. Teachers consistently reported better social adjustment and less hostility-aggression from east Asian than from white than from African-Caribbean children. Another study based on twenty-five countries from around the world showed that east Asians were less extraverted and more anxiety-prone than Europeans who in turn were less outgoing and more restrained than Africans.

Behavior Genetics

Differences between individuals in testosterone and its various metabolites are about 50 percent heritable. More surprising to many are the studies suggesting that criminal tendencies are also heritable. According to American, Danish, and Swedish adoption studies, children who were adopted in infancy were at greater risk for criminal convictions if their biological parents had been convicted than if the adopting parents who raised them had been convicted. In one study of all 14,427 nonfamilial adoptions in Denmark from 1924 to 1947, it was found that siblings and half-siblings adopted separately into different homes were concordant for convictions.

Convergent with this adoption work, twin studies find that identical twins are roughly twice as much alike in their criminal behavior as fraternal twins. In 1986 I reported the results of a study of 576 pairs of adult twins on dispositions to altruism, empathy, nurturance, and aggressiveness, traits which parents are expected to socialize heavily. Yet 50 percent of the variance in both men and women was attributable to genetics. The well-known Minnesota Study of Twins Raised Apart led by Thomas J. Bouchard, Jr., has confirmed the importance of genetic factors to personality traits such as aggressiveness, dominance, and impulsivity. David Rowe at the University of Arizona reviewed much of this literature in his 1994 book *Limits of Family Influence*. He explains how siblings raised together in the same family may differ genetically from each other in delinquency.

Genes code for enzymes, which, under the influence of the environment, lay down tracts in the brains and neurohormonal systems of individuals, thus affecting people's minds and the choices they make about behavioral alternatives. In regard to aggression, for example, people inherit nervous systems that dispose them to anger, irritability, impulsivity, and a lack of conditionability. In general, these factors influence *self-control*, a psychological variable figuring prominently in theories of criminal behavior.

Behavior genetic studies provide information about environmental effects. As described in Rowe's book,

the important variables turn out to be within a family, not between families. Factors such as social class, family religion, parental values, and child-rearing styles are not found to have a strong common effect on siblings. Because individual minds channel common environments in separate ways siblings acquire alternative sets of information. Although siblings resemble each other in their exposure to violent television programs, it is the more aggressive one who identifies with aggressive characters and who views aggressive consequences as positive.

Within-family studies show that intelligence and temperament separate siblings in proneness to delinquency. It is not difficult to imagine how an intellectually less able and temperamentally more impulsive sibling seeks out a social environment different from his or her more able and less impulsive sibling. Within the constraints allowed by the total spectrum of cultural alternatives, people create environments maximally compatible with their genotypes. Genetic similarity explains the tendency for trouble-prone personalities to seek each other out for friendship and marriage.

One objection sometimes made to genetic theories of crime is the finding that crime rates fluctuate with social conditions. Generational changes in crime, however, are expected by genetic theories. As environments become less impeding and more equal, the genetic contribution to individual difference variation necessarily becomes larger. Over the last 50 years, for example, there has been an increase in the genetic contribution to both academic attainment and longevity as harmful environmental effects have been mitigated and more equal opportunities created. Thus, easing social constraints on underlying "at risk" genotypes leads to an increase in criminal behavior.

Intelligence

The role of low cognitive ability in disposing a child to delinquency is established even within the same family where a less able sibling is observed to engage in more deviant behavior than an advantaged sibling. Problem behaviors begin early in life and manifest themselves as an unwillingness or inability to follow family rules. Later, drug abuse, early onset of sexual activity, and more clearly defined illegal acts make up the broad-based syndrome predicted by low intelligence.

Racial differences exist in average IQ-test scores and again the pattern extends well beyond the United States. The global literature on IQ was reviewed by Richard Lynn in the 1991 issue of *Mankind Quarterly*.

Caucasoids of North America, Europe, and Australasia generally obtained mean IQs of around 100. Mongoloids from both North America and the Pacific Rim obtained slightly higher means, in the range of 101 to 111. Africans from south of the Sahara, African-Americans, and African-Caribbeans (including those living in Britain) obtained mean IQs ranging from 70 to 90.

The question remains of whether test scores are valid measures of group differences in mental ability. Basically, the answer hinges on whether the tests are culture-bound. Doubts linger in many quarters, although a large body of technical work has disposed of this problem among those with psychometric expertise, as shown in the book of surveys by Snyderman and Rothman. This is because the tests show similar patterns of internal item consistency and predictive validity for all groups, and the same differences are to be found on relatively culture-free tests.

Novel data about speed of decision making show that the racial differences in mental ability are pervasive. Cross-cultural investigations of reaction times have been done on nine- to twelve-year olds from six countries. In these elementary tasks, children must decide which of several lights is on, or stands out from others, and move a hand to press a button. All children can perform the tasks in less than one second, but more intelligent children, as measured by traditional IQ tests, perform the task faster than do less intelligent children. Richard Lynn found Oriental children from Hong Kong and Japan to be faster in decision time than white children from Britain and Ireland who were faster than black children from Africa. Arthur Jensen has reported the same three-way pattern in California.

Brain Size

The relation between mental ability and brain size has been established in studies using magnetic resonance imaging, which, *in vivo*, construct three-dimensional pictures of the brain and confirm correlations reported since the turn of the century measuring head perimeter. The brain size/cognitive ability correlations range from about 0.10 to 0.40. Moreover, racial differences are found in brain size. It has often been held that racial differences in brain size, established in the nineteenth century, disappear when corrections are made for body size and other variables such as bias. However, modern studies confirm nineteenth-century findings.

Three main procedures have been used to estimate brain size: (a) weighing wet brains at autopsy; (b) measuring the volume of empty skulls using filler; and (c) measuring external head size and estimating volume. Data from all three sources triangulate on the conclu-

sion that, after statistical corrections are made for body size, east Asians average about 17 cm³ (1 cubic inch) more cranial capacity than whites who average about 80 cm³ (5 cubic inches) more than blacks. Ho and colleagues at the Medical College of Wisconsin analyzed brain autopsy data on 1,261 American subjects aged 25 to 80 after excluding obviously damaged brains and reported, in the 1980 issue of *Archives of Pathology and Laboratory Medicine*, that, after controlling for age and body size, white men averaged 100 grams more brain weight than black men, and white women averaged 100 grams more brain weight than black women. With endocranial volume, Beals and colleagues computerized the world database of up to 20,000 crania and published their results in the 1984 issue of *Current Anthropology*. Sex-combined brain cases differed by continental area with populations from Asia averaging 1,415 cm³, those from Europe averaging 1,362 cm³, and those from Africa averaging 1,268 cm³.

Using external head measurements I have found, after corrections are made for body size, that east Asians consistently average a larger brain than do Caucasians or Africans. Three of these studies were published in the journal *Intelligence*. In a 1991 study, from data compiled by the U.S. space agency NASA, military samples from Asia averaged 14 cm³ more cranial capacity than those from Europe. In a stratified random sample of 6,325 U.S. Army personnel measured in 1988 for fitting helmets, I found that Asian-Americans averaged 36 cm³ more than European-Americans who averaged 21 cm³ more than African-Americans. Most recently, I analyzed data from tens of thousands of men and women aged 25 to 45 collated by the International Labour Office in Geneva and found that Asians averaged 10 cm³ more than Europeans and 66 cm³ more than Africans.

Racial differences in brain size and IQ show up early in life. Data from the National Collaborative Perinatal Project on 19,000 black children and 17,000 white children show that black children have a smaller head perimeter at birth and, although they are born shorter in stature and lighter in weight, by age seven "catch-up growth" leads them to be larger in body size than white children, but still smaller in head perimeter. Head perimeter at birth correlated with IQ at age seven in both the black and the white children.

Origins of Race Differences

Racial differences exist at a more profound level than is normally considered. Why do Europeans average so consistently between Africans and Asians in

crime, family system, sexual behavior, testosterone level, intelligence, and brain size? It is almost certain that genetics and evolution have a role to play. Transracial adoption studies indicate genetic influence. Studies of Korean and Vietnamese children adopted into white American and white Belgian homes showed that, although as babies many had been hospitalized for malnutrition, they grew to excel in academic ability with IQs ten points higher than their adoptive national norms. By contrast, Sandra Scarr and her colleagues at Minnesota found that at age 17, black and mixed-race children adopted into white middle-class families performed at a lower level than the white siblings with whom they were raised. Adopted white children had an average IQ of 106, an average aptitude based on national norms at the 59th percentile, and a class rank at the 54th percentile; mixed-race children had an average IQ of 99, an aptitude at the 53rd percentile, and a class rank at the 40th percentile; and black children had an average IQ of 89, an aptitude at the 42nd percentile, and a class rank at the 36th percentile.

No known environmental variable can explain the inverse relation across the three races between gamete production (two-egg twinning) and brain size. The only known explanation for this trade-off is life-history theory. A life-history is a genetically organized suite of characters that evolved in a coordinated manner so as to allocate energy to survival, growth, and reproduction. There is, in short, a trade-off between parental effort, including paternal investment, and mating effort, a distinction Patricia Draper referred to as one between "cads" and "dads."

Evolutionary hypotheses have been made for why Asians have the largest brains and the most parenting investment strategy. The currently accepted view of human origins, the "African Eve" theory, posits a beginning in Africa some 200,000 years ago, an exodus through the Middle East with an African/non-African split about 110,000 years ago, and a Caucasoid/Mongoloid split about 40,000 years ago. Evolutionary selection pressures are different in the hot savanna where Africans evolved than in the cold arctic where Asians evolved.

The evidence shows that the further north the populations migrated out of Africa, the more they encountered the cognitively demanding problems of gathering and storing food, gaining shelter, making clothes, and raising children successfully during prolonged winters. The evolutionary sequence fits with and helps to explain how and why the variables cluster. As the origi-

nal African populations evolved into Caucasoids and Mongoloids, they did so in the direction of larger brains and lower levels of sex hormone, with concomitant reductions in aggression and sexual potency and increases in forward planning and family stability.

Despite the vast body of evidence now accumulating for important genetic and behavioral differences among the three great macro-races, there is much reluctance to accept that the differences in crime are deeply rooted. Perhaps one must sympathize with fears aroused by race research. But all theories of human nature can be used to generate abusive policies. And a rejection of the genetic basis for racial variation in behavior is not only poor scholarship, it may be injurious to unique individuals and to complexly structured societies. Moreover, it should be emphasized that probably no more than about 50 percent of the variance among races is genetic, with the remaining 50 percent due to the environment. Even genetic effects are necessarily mediated by neuroendocrine and psychosocial mechanisms, thus allowing opportunity for benign intervention and the alleviation of suffering.

SUGGESTED READINGS

- Richard Lynn. "Race Differences in Intelligence: A Global Perspective." *Mankind Quarterly*, 31 (1991), 255-296.
- Richard J. Herrnstein and Charles Murray. *The Bell Curve*. New York: Free Press, 1994.
- David C. Rowe. *The Limits of Family Influence*. New York: Guilford, 1994.
- J. Philippe Rushton. "Race and Crime." *Canadian Journal of Criminology*, 32 (1990), 315-334.
- J. Philippe Rushton. "Cranial Capacity Related to Sex, Rank, and Race in a Stratified Random Sample of 6,325 U.S. Military Personnel." *Intelligence*, 16 (1992), 401-413.
- J. Philippe Rushton, David W. Fulker, Michael C. Neale, David K.B. Nias, and Hans J. Eysenck. "Altruism and Aggression: The Heritability of Individual Differences." *Journal of Personality and Social Psychology*, 50 (1986), 1192-1198.
- Mark Snyderman and Stanley Rothman. *The IQ Controversy, the Media, and Public Policy*. New Brunswick, N.J.: Transaction Publishers, 1988.

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