Cross-National Variation in Violent Crime Rates: Race, *r-K* Theory, and Income

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Rushton's theory of *r-K* race differences was examined in relation to the rate of murder, rape, and serious assault per 100,000 population and Gross Domestic Product per Person for 74 countries from the 1993–1996 International Crime Statistics published by INTERPOL and the 1999 *CIA World Fact Book.* Each country was assigned to one of the three macro-races East Asian, European, and African. The results corroborated earlier findings that violent crime is lowest in East Asian countries, intermediate in European countries, and highest in African and in Black Caribbean countries. The median number of violent crimes per 100,000 population were: 7 East Asian countries—34; 45 European countries—42; and 22 African and Black Caribbean countries—149, respectively. The median Gross Domestic Product per Person was highest in East Asian countries ($12,600), intermediate in European countries ($7,400), and lowest in African and Black Caribbean countries ($1,900). Across the three population groups there was an "ecological correlation" of −.96 between crime and wealth (wealthier countries had *less* crime). Finer-grained analyses, however, found that while wealth was negatively related to crime across European or East Asian countries, it was *positively* related to crime for the African and Black Caribbean countries (i.e., the wealthier an African or Black Caribbean country, the greater its rate of violent crime). Future research needs to examine genetic factors in addition to cultural factors as well as their interactions.

KEY WORDS: *r-K* theory; race differences; criminal behavior.

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J. P. Rushton (2000) has proposed an evolutionary life-history theory to account for racial differences in a host of demographic, populational, and environmental variables. The theory proposes a gene-based Negroid-Caucasoid-Mongoloid gradient of *r/K* reproductive strategies. Drawn from sociobiology (Wilson, 1975), the *r-K* continuum defines a genetically-coordinated group of traits that evolved together to meet the trials of life—survival, growth, and reproduction. At one end of this scale, *r*-strategies are characterized by high fertility, low-investment parenting, fast maturation, and low intelligence and learning ability. *K*-strategies, on the other hand, are characterized by low fertility, high-investment parenting, slow maturation, and high intelligence and competitive ability. Typically, the *K*-strategy requires more complex nervous systems and bigger brains. It has been hypothesized that *r*-selected species are more adapted to non-competitive environments of resource abundance whereas *K*-selected species are adapted to more competitive environments of resource scarcity. Because the components of life-history (differential fertility, rates of maturation, sexual behavior, and parenting) are critical determinants of demography, *r/K* theory could have important implications for understanding human variation.

Rushton extended *r/K* theory to human race differences and found it predicts a wide spectrum of characteristics including fertility, infant mortality, rates of physical maturation, IQ scores, brain size, dizygotic twinning, crime, sexual potency, sexual precocity, number of sexual partners, and hormone levels. Mongoloids tend toward the *K* end of the *r-K* gradient. On average, they devote resources to producing fewer children, invest more heavily in them, and provide them with greater parental care. Negroids, on average, lie more toward the *r* end of the gradient. They tend to devote resources to producing greater numbers of children, invest less heavily in them, and provide less parental care. Caucasoids tend toward being intermediate, though closer on the *r-K* gradient to Mongoloids than to Negroids.

One test of Rushton's gene-based theory is whether the racial differences in British, Canadian, and U.S. crime statistics are generalizable internationally (Neapolitan, 1998; Rushton, 1990, 1995; Lynn, 2002b). Do East Asian populations from China, Japan, Korea, and Vietnam (sometimes called Orientals, or more technically, Mongoloids) generally average lower rates of violent crime (e.g., murder, rape, and serious assault) than do European populations (Whites, Caucasoids)? In turn, do Europeans and their descendants generally average lower rates of violent crime than Africans and their descendants (Blacks, Negroids)? The answers may shed light on the extent to which observed racial differences are the result of local conditions within Britain, Canada, and the United States (e.g., anti-Black racism; selective migration from Pacific Rim countries) versus conditions endemic

to the populations (e.g., cultural values, family structures, genetic and biological factors).

Crime statistics within Britain, Canada, and the United States show that people of East Asian ancestry are disproportionately under-represented while those of African ancestry are disproportionately over-represented relative to those of European ancestry. For example, in Canada, a government commission found that Blacks were five times more likely to be in jail than Whites and ten times more likely than Asians (Ontario, 1996). In Britain, the Home Office (1999) found that Blacks, who were 2% of the general population, made up 15% of the prison population. (No figures were reported for East Asians such as the Chinese, but Asians from the Indian subcontinent were 3% of the general population and 2% of the prison population.) In the U.S., Wilson and Herrnstein (1985) and Taylor and Whitney (1999) analyzed the FBI *Uniform Crime Statistics* and *National Crime Victimization Surveys* from the U.S. Department of Justice (e.g., 1997, 1998) and found that since record keeping began at the turn of the century, and throughout the 1960s, 1970s, 1980s, and 1990s, African Americans consistently committed proportionately more violent crime than did European Americans, while Asian Americans consistently committed proportionately fewer. Victim surveys tell a similar story. The proportional differences in arrest statistics cannot therefore be attributed to police prejudice.

Finer grained analyses within the United States also find race a factor. Whitney (1995) found that the best predictor of local murder rate is the percent of the population that is African American. Across 170 cities, Whitney (1995) found a correlation of $r = 0.69$ between the rate of murder and the percent of the population that was African American. Similarly, across the 50 states, Whitney (1995) found a correlation of $r = 0.77$ between the rate of murder and the percent African American. In a follow-up study, Hama (1999) found a correlation of $r = 0.76$ across the 50 states between violent crime (an aggregate of murder, non-negligent manslaughter, rape, robbery, and aggravated assault), and the percentage of the population that was African American.

Lynn (2002a, 2002b) has examined the application of Rushton's *r-K* theory to racial differences in sexual behavior and psychopathic personality. Thus, Lynn (2002a) analyzed the annual surveys of the National Opinion Research Center for 1990–1996 and found that, compared to Whites, Blacks reported more sexual partners and a greater frequency of sexual intercourse. Similarly, Lynn (2002b) reviewed the literature on psychopathy and found that East Asians averaged the lowest rate, Blacks highest, and Whites intermediate. The attributes included: being diagnosed with childhood conduct disorder or Attention Deficit Hyperactivity Disorder (ADHD),

being suspended or excluded from school, scoring low on tests of moral understanding, failing to live up to financial obligations such as paying back student loans, poor work commitment, recklessness (e.g., having traffic accidents), maintaining monogamous relationships, being responsible parents, engaging in domestic violence, and needing hospitalization for injuries sustained through altercations.

Two fundamentally different models have been put forth to explain why the races differ in average rate of crime and other socially valued outcomes: (1) the "discrimination" model, and (2) the "distributional" model (Herrnstein, 1990). The discrimination model focuses on social and institutional practices that discriminate against members of one group (or favor members of another), thus tilting the "playing field." The crucial assumption of this model is that in the absence of such discrimination, crime rates would be about equal for all populations. Factors hypothesized under this model include relative poverty, anti-Black bias by police, a lack of access to legitimate channels of upward mobility, and inadequate family socialization due to the legacy of slavery. On the other end of the model, criminologists as early as the 1920s explained the under-representation of East Asians in U.S. crime statistics by hypothesizing the East Asian "ghetto." This "ghetto" was seen as a response to external prejudice that protected members from the disruptive tendencies of the outside society. It was also claimed that bias against East Asian migration ("yellow peril") resulted in only the wealthiest or hardest-working East Asians gaining entry into White-majority countries.

The alternative distributional model explains the overlapping of the populations and their differing averages in terms of differential population characteristics—for example, Rushton's (2000) *r-K* life-history theory, or Sowell's (1994) theory of socialization through subtle cultural traditions. Other factors hypothesized to underlie the distribution model include deep-rooted cultural values and family structures endemic to populations, as well as biological variables including body type, percent of age of cohort, hormonal levels, exposure to toxic chemicals such as lead which may have different effects based on constitutional differences in metabolism, and personality and temperament. Thus according to the distributional model, the population differences are expected to occur more universally. The two models may each be partially correct (Ellis & Walsh, 1999).

To test whether the race differences in crime found within Britain, Canada, and the U.S. occurred more universally, Wilson and Herrnstein (1985) and Rushton (1990, 1995) collated data from INTERPOL Yearbooks (1980 to 1990) and found that Pacific Rim countries reported less violent crime (an aggregate of murder, rape, and serious assault) than did European coun-

tries and much less than did African and Caribbean countries. Summing the crimes, and averaging across years, Rushton (1990, 1995) found statistically significant differences per 100,000 population of: 44 (Pacific Rim), 74 (European), and 143 (Afro-Caribbean) total crimes, respectively. These results did not depend on the selection of countries because when only ethnically more homogeneous sets were chosen, for example, by limiting countries to those from northeast Asia, central Europe, and sub-Saharan Africa, the proportionate differences remained the same—or became even greater. Nor did the pattern alter for other sets of countries. For example, in the Caribbean data set, six mainly White/Amerindian countries averaged 72 per 100,000 whereas eight mainly Black countries averaged 449 violent crimes per 100,000 population (Rushton, 1995).

These results have been contested. The main reasons given for rejecting them have been that: (1) the category of race is too poorly defined to allow reliable classification, (2) the source books contain too many errors to be reliable or representative, and (3) the results do not always occur in the predicted direction (Gabor & Roberts, 1990; Neapolitan, 1998; Roberts & Gabor, 1990; Yee et al., 1993). In short, questions have been raised about the reliability of the data.

A recent critique of Rushton's work by Neapolitan (1998), for example, examined the single crime of homicide, across 118 countries (with many Latin American countries all questionably assigned as "White"), while controlling for other, mainly socio-economic variables. Neapolitan found race explained "a small amount of the variance in homicides" (p. 145) and that although "the association of the black variable [in a regression analysis] is statistically significant," it failed to remain so after controlling for "Ethnic Heterogeneity," "Income Inequality," "GNP per Person (log)," "Mean Household Size," "Percent Urban," and "Percent Young."

Neapolitan's (1998) critique of Rushton's work requires a reply. To the limited extent that Neapolitan strives to explain the differences he observes, he roots himself in the discrimination model. In his words, what is needed is "more research addressing justice, particularly racial justice" (p. 148). He ignores the distributional model and holds that race cannot be primary because it is only a "political construction resulting from social conflict" (p. 149). This position obscures more than it clarifies for his analyses confound the facts needing to be explained with explanations of those facts. For example, the social variables that Neapolitan used to make the higher homicide in African countries "disappear" have themselves been explained in terms of race-correlated genes for intelligence (leading to low income; Herrnstein & Murray, 1994; Rushton, 2000).

A fundamental rule of science is that explanations must be based on

the "totality of evidence." In this paper we use the 1993 to 1996 INTERPOL Yearbooks for homicide, rape, and serious assault to examine whether race is a more universal predictor variable. We also examine the role of Gross Domestic Product per Person on these variables both across and within ethnicities. If cross-nationally race is predictive of rape as well as homicide and serious assault, it places the hypothesis on firmer scientific ground. Moreover, although a case can be made that poverty leads men to commit murder and serious assault, the logic becomes weaker when extended to differences in committing rape.

METHOD

The International Crime Statistics for 1993–1996 collated and published by INTERPOL were examined. The 1996 Yearbook provided data for 14 categories of crime in 116 countries. For clarity of testing our hypothesis, we followed previous research (Wilson & Herrnstein, 1985; Rushton, 1990, 1995) and winnowed the data to 3 crimes in 74 countries. The number of crimes was reduced because the figures for some crimes are highly dependent on a particular country's laws, income levels, or mores (e.g., "Sex offences") or on the availability of goods to be stolen (e.g., "Theft of Motor Cars"). Thus, we focused on the three most serious and unambiguous crimes, which are given definitional limits in the preface to the INTERPOL Yearbooks: *Murder*, "Any act performed with the purpose of taking human life, in whatever circumstance. This definition *excludes abortion* but *includes infanticide*;" *Rape*, (separate from other "Sex offences"); and *Serious assault*, "An injury whereby life could be endangered, including cases of injury involving the use of a dangerous instrument. Cases where instruments are used merely to threaten people without causing injury are to be excluded" (INTERPOL, 1996, front matter).

We consulted the *CIA World Fact Book* for 1999 for two values: (1) "Ethnic Groups," the percentage of various races in a country; and (2) Gross Domestic Product (GDP) per Person. In order for a country to be included, all 5 categories of information had to be available for at least one reporting year. Data from racially mixed countries (e.g., Brazil, U.S.A.) can be epidemiologically misleading and difficult to interpret in trans-national comparisons so we included only countries where 90% or more of their population is from one of the three geographic population groups of East Asian, European, or African. Rwanda was also excluded because of the anomalously high rate of homicide resulting from the civil war that occurred during the

period analyzed. Altogether, complete data were available for 74 countries: 7 East Asian, 45 European, and 22 African.

RESULTS

The means, medians, and standard deviations for the three racial groups for each of the three types of crime, their sum, and the Gross Domestic Product per Person, are shown in Table 1. As can be seen, for all four crime categories, the East Asian and European countries averaged about one-third the rates of African and Black Caribbean countries. Moreover, the predicted East Asian < European differences also generally occurred (for serious assaults this was reversed but the SDs were very large in this category, especially for Asian countries, and using the median, rather than the mean, again resulted in concordance with previous studies). For 7 East Asian, 45 European, and 22 African and Black Caribbean countries, the medians per 100,000 population were, respectively: Murder—1.6, 4.2, and 7.9; Rape—2.8, 4.5, and 5.5; and Serious Assault—31.0, 33.7, and 135.6. Summing the medians resulted in a total of violent crimes per 100,000 of population: East Asians, 35; Europeans, 42; and Africans or Black Caribbeans, 149.

With each country taken as an independent entry, the results of one-way analyses of variance showed significant differences among the populations in each of the crime categories (Murder, $F_{2,71} = 4.52$, $p < 0.01$; Rape, $F_{2,71} = 9.22$, $p < 0.001$; Serious assault, $F_{2,71} = 10.45$, $p < 0.001$; Sum of all three crimes, $F_{2,71} = 10.11$, $p < 0.001$). Some might question the application of parametric analyses to these ratio figures. However, the exact probability of getting this particular median ranking three times in a row is $1/6 \times 1/6 \times 1/6 = 0.01$.

To examine the SES/wealth correlates of crime, we used each country's median Gross Domestic Product (GDP) per Person. It was highest in East Asian countries ($12,600), intermediate in European countries ($7,400), and lowest in African and Black Caribbean countries ($1,900). Following the prescriptive advice of Lubinski and Humphreys (1996) to correlate group means when predicting the behavior or status of groups, and the example of Jensen (1998, pp. 442–443) who found an "ecological correlation" of 0.998 across the three racial groups between brain size and IQ scores, we calculated a similar correlation of −0.96 between crime and wealth across the three major geographic races (wealthier races had less crime). Calculating the correlations between GDP and crime across all 76 countries found the association to be weaker but still significant, again showing the wealthier the country, the less the crime. More perplexing, however, is the finding

TABLE 1

Mean and Median Rates of Crime per 100,000 People and Gross Domestic Product per Person for Three Macro-Populations

	East Asian (n = 7)			European (n = 45)			African (n = 22)		
	Mean	SD	Median	Mean	SD	Median	Mean	SD	Median
Murder	3.90	5.90	1.56	5.65	4.85	4.16	13.48	17.89	7.89
Rape	5.00	5.50	2.80	5.18	4.12	4.48	20.05	23.95	5.51
Serious assault	83.05	114.78	31.04	68.90	76.08	33.72	233.59	235.12	135.55
All crimes combined	91.95	115.31	34.40	79.73	76.08	43.36	267.12	264.48	148.95
GDP	12,060	9,844	12,600	10,823	8,548	7,400	2,683	2,011	1,900

Note: 7 East Asian countries = China, Hong Kong, Japan, Korea, Macao, Mongolia, Vietnam; 45 European countries = Armenia, Austria, Azerbaijan, Bulgaria, Chile, Croatia, Cyprus, Czech, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Ireland, Israel, Jordan, Kuwait, Latvia, Lebanon, Luxembourg, Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Saudi Arabia, Slovak, Slovenia, Spain, Sweden, Switzerland, Syria, Turkey, Ukraine, Uzbekistan, Tunisia, Belarus, Kazajstan, Lithuania, Moldova; 22 African or Black Caribbean countries = Angola, Benin, Botswana, Burkina Faso, Cameroon, Ivory Coast, Dominica, Ethiopia, Gabon, Gambia, Ghana, Grenada, Jamaica, Kenya, Namibia, St. Kitts and Nevis, Swaziland, Tanzania, Turks & Caicos, Uganda, Zambia, Zimbabwe.

that the correlations with the GDP are *positive* for the 22 African and Black Caribbean countries (Murder, $r = 0.33$, ns; Rape, $r = 0.65$, $p < 0.05$; and Serious assault, $r = 0.63$, $p < 0.01$), suggesting that in those regions and among those populations, it is the wealthier, more urbanized countries that have the most social disruption.

DISCUSSION

These results first corroborate predictions from Rushton's *r-K* theory of racial differences that Blacks average higher rates of violent crime than do Whites and East Asians and then extend the earlier trans-national data (Wilson & Herrnstein, 1985; Rushton, 1990, 1995), which found that people of East Asian descent commit relatively fewer acts of violent crime than do those of European or African descent. Present results show that the population patterns in crime found *within* Britain, Canada, and the United States are more generalizable than is often supposed. This implies that some of the causes of race differences must be sought beyond the local conditions of particular countries or even groups of countries.

Several qualifications need to be stated. First, the racial groupings do not represent "pure types." Although we omitted countries with very mixed populations (e.g., Brazil, U.S.A.), enormous ethnic variation exists within all countries. Second, each country differs in the procedures used to collect and disseminate the figures on crime. Third, great variability exists in these figures *within* each grouping. Benin, for example, a West African country, reported a relatively low crime rate, with 3.7 homicides, 1.0 rapes, and 17.4 serious assaults per 100,000 people. Macao, in East Asia, reported higher rates in each of these categories, 4.6, 2.8, and 83.0, respectively. Nonetheless, despite substantial overlap, the mean population differences were as predicted from previous research.

These data speak to one of the most important issues facing the field of criminology in showing there are significant differences in murder, rape, and serious assaults in East Asian, European, and African countries that parallel those found within Britain, Canada, and the United States. Moreover, the crime differences cannot simply be attributed to "poverty" for such an explanation does not fit the finer-grained analyses found *within* African countries where violent crime increased with GDP. This could be because only wealthier nations have the infrastructure to gather and report crime statistics comparable to those for East Asia and Europe. It is also possible that there are some gene-culture interactions when opportunities become available for engaging in behavior not otherwise affordable. In Af-

rica, for example, there is a link between wealth and AIDS: wealthier males turn their resources into sexual partners (Rushton & Bogaert, 1989).

Lynn (2002a; 2002b) recently noted the relation between race differences in sexual behavior and psychopathic personality and Rushton's *r-K* theory. He therefore called for a paradigm shift in the analysis of a number of population and environment issues. Most notably, while HIV/AIDS is a serious public health problem for all racial groups, it is especially so for Africans and people of African descent (currently almost 9 out of every 100 Africans are infected with HIV/AIDS; the rate is 2.2% in the Black Caribbean; in the U.S. about 2% of African Americans are living with HIV/AIDS compared to 0.4% of European Americans and less than 0.1% of East Asian Americans (UNAIDS/WHO, 2001). Since there is little cultural contact between the various African descended populations, the explanation is most likely a genetic one.

Taken together, these results support the distributional model rather than the discrimination model of why the races differ in average rate of crime and other socially valued outcomes. However, we do not suggest that racial differences are 100% genetic, but rather that they are due to genes, cultures, and their interactions. Genetic factors involve brain size and intelligence (Jensen, 1998; Rushton & Ankney, 2000), and hormone levels like testosterone (Ellis & Nyborg, 1992). Cultural factors involve socialization practices, including of deep-rooted values transmitted by families (Sowell, 1994). The precise paths by which racial factors have their effects are complex and need to be explicated in detail.

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