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National differences in intelligence, crime, income, and skin color

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ABSTRACT

National differences in murder, rape, and serious assault were examined in 113 countries in relation to national IQ, income, skin color, birth rate, life expectancy, infant mortality, and HIV/AIDS. Data were collated from the 1993–1996 International Crime Statistics published by INTERPOL. Violent crime was found to be lower in countries with higher IQs, higher life expectancies, lighter skin color, and lower rates of HIV/AIDS, although not with higher national incomes or higher rates of infant mortality. A principal components analysis found the first general factor accounted for 52% of the variance. Moreover, the correlations were significantly higher with skin color, a more biologically influenced variable, than with measures of national income, a more culturally influenced variable. When the 19 sub-Saharan African countries were excluded from analysis the crime/IQ relation held but the crime/skin color relation did not.

1. Introduction

This paper examines the relation of national differences in violent crime to Lynn and Vanhanen's (2002, 2006) national IQ scores and Rushton's (1985) *r–K* life-history hypothesis that "one basic dimension—*K*—underlies much of the field of personality" (1985, p. 445; Rushton, 2000, 2004). For example, Lynn and Vanhanen (2006) found national IQs reliably correlated with national income (.68), adult literacy (.64), enrollment in higher education (.75), life expectancy (.77), and democratization (.57). Templer (2008) found Rushton's *K* super-factor accounted for 75% of the variance across 129 national differences in IQ, birth rate, infant mortality, HIV/AIDS, life expectancy, skin color, and GDP (median $r = .68$).

There seems little doubt about the reliability and validity of the national IQ scores. Rindermann (2007a,b) discovered a positive manifold encompassing national IQ and tests of educational achievement that suggested the existence of a *g*-factor (Big G) among all the cognitive measures. Gelade (2008b) validated the national IQs by using spatial statistics to show that geographic neighbors had more similar IQs than nations that are far apart. He found the relationship between location and national IQ was even stronger than the relationship between location and national average temperature. Other studies have found that national IQ correlates with geographical distance from Africa (Kanazawa, 2008), atheism (Lynn, Harvey, & Nyborg, 2009), educational achievement (Lynn, Meisenberg, Mikk, & Williams, 2007; Lynn & Mikk, 2007), scientific productivity measured by articles published (Morse, 2008), technological patents registered (Gelade, 2008a), and value orientations such as traditionalism versus modernism (Meisenberg, 2004).

Templer found the *r–K* correlations were higher with skin color (mean $r = .74$), a more biologically influenced variable, than they were with GDP (mean $r = .57$), a more culturally influenced variable. He conceptualized skin color as a multigenerational adaptation to differences in climate. Previously, he (Templer & Arikawa, 2006) found IQ correlated with skin color across 129 countries ($r = -.92$; the higher the IQ, the darker the skin), as also with mean high winter temperature ($-.76$) and mean low winter temperature ($-.66$). The correlation between IQ and skin color remained even when calculated separately within each of the three continents: Africa, $-.86$; Asia, $-.55$; and Europe, $-.63$.

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Table 1
Means for homicide, rape, and serious assault, birth rate, life expectancy, infant mortality, HIV/AIDS, skin color, gross domestic product, and gross national income for 113 countries.

Country	Homicide	Rape	Serious assault	IQ score	Birth rate	Life expectancy	Infant mortality	HIV/AIDS (%)	Skin color	GNI
Andorra	4	6	29	98	8	84	4	–		19000
Angola	11	2	11	68	46	40	188	3.9	7.0	1840
Antigua	5	85	479	70	16	74	18	–		10390
Argentina	16	9	22	93	16	74	14	0.7		10190
Armenia	4	1	4	94	12	72	23	0.1	1.7	3230
Austria	2	6	3	100	9	79	5	0.3	1.0	28910
Azerbaijan	8	1	5	87	20	72	82	0.1	2.0	3010
Bahamas	14	48	215	84	17	66	24	3.0		15960
Bahrain	1	14	350	83	18	74	17	0.2	4.0	16190
Bangladesh	2	1	6	82	30	61	63	0.1	4.3	1720
Barbados	6	26	161	80	13	73	11	1.5		14660
Belarus	10	3	18	97	11	70	13	0.3	1.3	5500
Belgium	13	39	469	99	11	78	5	0.2	1.0	28130
Belize	24	15	288	84	28	72	24	2.4		5490
Benin	4	1	17	70	40	51	81	1.9	7.0	1060
Bermuda	14	48	215	90	12	78	8	0.3		36000
Botswana	14	69	406	70	23	41	55	37.3	7.0	7740
Brunei	2	5	3	91	19	76	13	0.1	4.0	19210
Bulgaria	8	9	14	93	10	71	21	0.1	1.7	7030
Burkina Faso	1	0	2	68	46	46	93	4.2	7.7	1,090
Burma	3	2	25	87	18	57	64	1.2	3.0	1027
Chile	6	10	106	90	15	76	8	0.3		9420
China	1	3	4	105	13	71	24	0.1	2.0	4520
Columbia	66	4	80	84	20	72	20	0.7		6150
Cote d'Ivoire	3	3	99	69	36	41	91	7.0	6.3	1450
Croatia	7	2	23	90	10	74	7	0.1	2.0	10000
Cyprus	3	2	18	91	13	78	7	0.1	2.0	18650
Czech Republic	3	7	42	98	9	75	4	0.1	1.3	14920
Denmark	3	8	173	98	11	77	5	0.2	1.0	30600
Dominica	8	28	546	67	16	73	14	–		4960
Dominican Republic	14	14	54	82	23	67	27	1.7		6270
Ecuador	23	9	39	88	22	71	22	0.3		3,340
Estonia	21	7	29	99	10	72	8	1.1	1.0	11630
Ethiopia	16	1	55	64	39	46	95	4.4	6.7	780
Fiji	11	11	50	85	22	70	12	0.1		5330
Finland	1	8	38	99	11	78	4	0.1	1.0	26160
France	4	12	121	98	12	79	4	0.4	1.0	27040
Gambia	1	1	20	66	40	54	73	1.2	8.0	1660
Georgia	8	1	90	94	10	74	19	0.1	2.0	2270
Germany	5	8	116	99	8	78	4	0.1	1.0	26980
Ghana	2	4	405	71	31	58	56	3.1	7.0	2080
Greece	3	2	68	92	10	78	6	0.2	2.0	18770
Grenada	8	43	99	71	22	65	14	–		6600
Guyana	18	18	1111	87	18	63	30	2.5		3940
Honduras	60	1	54	81	27	69	25	1.8		2540
Hong Kong	1	2	123	108	7	80	3	0.1	2.0	27490
Hungary	4	4	77	98	10	72	9	0.1	1.0	13070
Indonesia	1	1	5	87	21	67	36	0.1	4.7	3,070
Ireland	2	5	15	92	15	77	5	0.1	1.0	29570
Israel	2	10	310	95	20	79	4	0.1		19000
Jamaica	31	31	590	71	20	76	16	1.2		3680
Japan	1	1	14	105	10	82	3	0.1	2.0	27380
Jordan	7	1	28	84	22	71	17	0.1	3.0	4180
Kazakhstan	16	13	195	94	16	66	29	0.2	2.0	5630
Korea (S)	2	7	302	106	10	75	6	0.1	2.0	16960
Kuwait	2	1	40	86	22	77	10	0.1	4.0	17780
Latvia	12	5	24	98	9	71	10	0.6	1.0	9190
Lebanon	4	2	41	82	19	74	25	0.1	3.7	4600
Lithuania	13	5	267	91	9	73	7	0.1	1.3	10190
Luxembourg	1	10	295	100	12	78	5	0.2	1.0	53230
Macedonia	4	2	46	91	12	74	10	0.1	1.7	6420
Madagascar	2	0	17	82	38	53	56	1.7		730
Malawi	3	1	83	69	44	38	96	14.2	7.0	570
Malaysia	2	5	16	92	23	73	18	0.4	4.7	8500
Maldives	1	3	16	81	34	67	52	0.1		4798
Malta	2	3	26	97	10	78	4	0.2		17710
Mauritania	1	2	50	76	41	52	71	0.6	5.0	1790
Mauritius	3	3	27	89	15	72	13	0.1		10820
Moldova	10	7	13	96	15	69	40	0.2	2.0	1600

Table 1 (*continued*)

Country	Homicide	Rape	Serious assault	IQ score	Birth rate	Life expectancy	Infant mortality	HIV/AIDS (%)	Skin color	GNI
Mongolia	19	15	35	101	22	64	54	0.1	2.0	1710
Namibia	62	48	629	70	25	45	49	21.3	6.7	6880
Nepal	2	1	6	78	32	60	67	0.5	4.3	1370
Netherlands	21	10	209	100	11	78	5	0.2	1.0	28350
New Zealand	3	34	533	99	14	78	5	0.1		20550
Niger	1	1	19	69	51	46	120	1.2	7.0	800
Norway	3	12	58	100	12	79	4	0.1	1.0	36690
Oman	1	4	2	83	37	72	20	0.1	5.0	13000
Panama	17	14	20	84	21	75	16	0.9		6060
Paraguay	15	4	79	84	29	71	26	0.5		4590
Poland	3	5	76	99	10	74	7	0.1	1.0	10450
Portugal	4	2	2	95	11	76	5	0.4	2.0	17820
Qatar	2	4	17	78	16	72	19	0.1	4.0	19844
Romania	5	6	5	94	11	71	26	0.1	2.0	6490
Russia	21	9	43	97	10	68	15	1.1	2.0	8080
Saint Kitts	9	40	524	67	18	70	13	–		10750
Samoa	8	8	494	88	28	70	25	–		5570
Saudi Arabia	1	1	19	84	30	72	13	0.0	4.0	12660
Seychelles	2	15	421	86	16	73	14	–		18232
Singapore	1	3	6	108	9	78	2	0.2		23730
Slovakia	2	4	174	96	11	74	7	0.1	1.3	12590
Slovenia	5	3	24	96	9	76	5	0.1	1.0	18480
South Africa	92	115	535	72	19	49	62	21.5	6.7	9810
Spain	2	3	22	98	10	79	4	0.7	2.0	21910
Sri Lanka	10	4	11	79	16	73	14	0.1	6.0	3510
Swaziland	61	83	533	68	28	36	73	38.8	7.0	4730
Sweden	10	20	234	99	10	80	3	0.1	1.0	25820
Switzerland	3	5	54	101	10	79	4	0.4	1.0	31840
Syria	1	1	2	83	28	72	30	0.1	3.3	3470
Tanzania	8	2	2	72	38	44	99	8.8	7.0	580
Thailand	8	6	26	91	14	69	20	1.5	3.7	6890
Trinidad	12	11	57	85	13	71	24	3.2		9000
Tunisia	1	6	159	83	16	73	25	0.1	3.0	6440
Turkey	3	1	47	90	17	71	41	0.1	2.0	6300
Uganda	9	7	15	73	47	46	68	4.1	7.7	1360
Ukraine	9	4	27	97	9	70	11	1.4	1.7	4800
UAE	1	2	68	84	19	75	15	0.2	4.0	24030
UK	8	12	159	100	11	78	5	0.2	1.0	26580
USA	8	37	412	98	14	77	6	0.6		36120
Uzbekistan	5	3	5	87	26	63	71	0.1	2.0	1640
Venezuela	23	17	148	84	21	74	22	0.7		5200
Vietnam	2	1	10	94	17	69	26	0.4	4.0	2300
Zambia	11	4	309	71	41	33	88	16.5	7.7	800
Zimbabwe	12	25	191	66	28	34	52	24.6	7.0	2180

The present study relates cross national differences in violent crime from 113 countries to national IQ scores, measures of national income, skin color, and various life-history indicators such as birth rate, infant mortality, life expectancy, and HIV/AIDS. Much previous research has supported a life-history approach to IQ and crime. Among university students, Bogaert and Rushton (1989) found correlations between general intelligence, self-reported delinquency, sex guilt, mating effort (sexual permissiveness), and an aggregate of life-history items assessing family size, maturational speed, longevity, altruism, and reproductive effort. Ellis (1988) found criminals had lower levels of education, an earlier onset of sexual behavior, more frequent sexual partners, more siblings and half-siblings, and a shorter life-span than non-criminals. Rowe, Rodgers, Meseck-Bushey, and St. John (1989) found that among adolescents, 36 to 49% of the variance in the level of delinquency engaged in by one sibling was predicted by the amount of sexual intimacy engaged in by the other. Rowe and Flannery (1994) found that high scores on measures of delinquency and sexuality loaded positively on measures of impulsivity, deceitfulness, and rebelliousness, and negatively on parental affection and encouragement of achievement. Rowe, Vazsonyi, and Figueredo (1997) found that differences in delinquency correlated with measures of mating effort (e.g., number of sexual partners) both within individuals and across siblings.

Statistics on crime in the US show that African Americans are over-represented and East Asian Americans under-represented relative to European Americans. Since victim surveys tell a similar story, the proportional differences cannot be attributed to police prejudice or to bias in the criminal justice system (Taylor & Whitney, 1999). 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 East Asians (Ontario, 1996). In Britain, the Home Office (1999) reported that the Afro-Caribbean 2% of the population made up 15% of the prison population. Lynn (2002) found an East Asian–White–Black gradient in mean scores in psychopathic personality indexed by childhood conduct disorder, being suspended from school, scoring low on tests of moral

understanding, poor work commitment, maintaining monogamous relationships, being responsible parents, engaging in domestic violence, failing to live up to financial obligations, recklessness in traffic accidents and in needing hospitalization for injuries through altercations.

Finer grain analyses also show the race-crime link. Across 170 U.S. cities, Whitney (1995) found a correlation of $r = .69$ between the percentage of the population that was African American and the rate of homicide. He found a similar correlation ($r = .77$) across the 50 states. In a follow-up study, Hama (1999) found a correlation of $r = .76$ between the percentage of the population that was African American in each of 50 states and an aggregate of murder, manslaughter, rape, robbery, and aggravated assault.

The worldwide distribution of race differences in murder, rape, and serious assault are found in the INTERPOL Yearbooks. From the 1986 Yearbook, Rushton (1990) collated the rates per 100,000 people for 12 East Asian countries, 48 European countries, and 28 African and Caribbean countries and found: for murder, 6, 5, and 9; rape, 3, 6, and 14; and serious assault, 29, 66, and 130, respectively. From the 1990 Yearbook, Rushton (1995) examined the rates per 100,000 people for 12 East Asian, 41 European, and 23 Afro-Caribbean countries and found: for murder, 3, 5, and 13; rape, 3, 6, and 17; and serious assault, 27, 63, and 213, respectively. From the 1993–96 Yearbooks, Rushton and Whitney (2002) examined the rates per 100,000 people for 7 East Asian, 45 Caucasian, and 22 Afro-Caribbean countries and found: for murder, 2, 4, and 8; rape, 3, 5, and 6; and serious assault, 31, 34, and 136, respectively.

In the present study, cross-national differences in violent crime from 113 countries are related to national IQ, measures of national income, skin color, birth rate, infant mortality, life expectancy, and HIV/AIDS.

2. Method

2.1. International crime statistics for 1993–1996

Table 1 presents the rates of murder, rape, and serious assault per 100,000 population from those published in the 1993–1996 INTERPOL Yearbooks, which provided data for 14 categories of crime in 116 countries. For clarity, we followed previous research (e.g., Rushton & Whitney, 2002) and winnowed the data to the three most serious and unambiguous crimes given definitional limits: *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, emphasis in original). In order for a country to be included, all three categories of crime had to be available for at least one reporting year. If more than one year was available, we took the average. Rwanda was excluded because of the anomalously high rate of homicide reported, likely resulting from the civil strife occurring during the period. For the United Kingdom, an average was taken of the data reported separately for England and Wales, Scotland, and Northern Ireland.

2.2. IQ scores

Table 1 presents national IQ scores from those assembled by Lynn and Vanhanen (2006, Table 4.3, pp. 55–61). Of the 113 national IQs shown in Table 1, 73 were calculated directly and 41 estimated on the basis of those from neighboring countries. Although using only estimates of national IQ has been criticized (Barnett & Williams, 2004; Hunt & Sternberg, 2006), the data show that for 25 countries with IQs estimated in 2002 and later-measured, the correlation was .91 (Lynn & Vanhanen, 2006, p. 54, Table 4.2). Gelade (2008b) validated both the estimated and measured national IQs by using spatial statistics to show that geographic neighbors had more similar IQs than nations that are far apart.

2.3. PPP–GNI per capita 2002

Table 1 presents as the indicator of per capita income the 2002 PPP–GNI (Purchasing Power Parity Gross National Income) assembled by Lynn and Vanhanen (2006, pp. 316–323, Appendix 2). This metric was adopted by the World Bank in 2000 as a broader and arguably more equitable measure of a nation's wealth than the more frequently used Gross Domestic Product (GDP) per capita, defined as the annual market value of final goods and services produced within the geographical boundaries of a nation. The PPP–GNI indicator includes the goods and services produced by families for their own consumption, which are relatively more important in poor countries than in rich countries. The GNI values are

Table 2
Correlations for IQ, homicide, rape, serious assault, birth rate, life expectancy, infant mortality, HIV/AIDS, skin color, gross domestic product, and gross national income for 113 countries.

Measure	Homicide	Rape	Serious assault	IQ	Birth rate	Life expectancy	Infant mortality	HIV/AIDS (%)	Skin color	PPI–GNP
Homicide	1.00									
Rape	59	1.00								
Serious assault	35	62	1.00							
IQ	−25	−29	−21	1.00						
Birth rate	05	−08	−05	−76	1.00					
Life expectancy	−26	−19	−10	74	−78	1.00				
Infant mortality	11	−01	−06	−67	83	−86	1.00			
HIV/AIDS	48	67	42	−52	30	−70	39	1.00		
Skin color	25	24	20	−92	87	−85	76	56	1.00	
PPI–GNP	−17	10	09	58	−56	60	−59	−22	−57	1.00

Note: $r = .17$, $P < .05$.

corrected for the "trade sector bias" in per capita indicators using "purchasing power parity" based on international prices. PPI–GNI correlated .79 with the measure of GDP reported by Templer (2008) based on data from Lynn and Vanhanen (2002, pp. 249–256, Tables 3 and 4). In this paper we report only the results for PPP–GNI.

2.4. Demographic variables

Data on life expectancy (in years), birth rate (per 1000 population), infant mortality (deaths per 1000 births), and HIV/AIDS (percentage of afflicted adults) are taken from those assembled by Templer (2008) based on the CIA World Factbook. We supplemented missing data using the most recent on-line version of this source (accessed on line September 8, 2008).

2.5. Skin color

Table 1 presents skin color measured on a scale from 1 (very light) to 8 (very dark) from Templer (2008) as originally formulated by Templer and Arikawa (2006) from a skin color map of the world provided by Biasutti (1967). Because this map did not delineate national boundaries, Templer and Arikawa (2006) had three graduate students unaware of the purpose of the study specify the dominant color for each of the 129 countries. The correlations between pairs of raters were .95, .95, and .93.

3. Results

Table 1 presents the values for the 12 variables for each of the 113 countries. Their means and SDs are: IQ (85, 13), homicide (10, 15), rape (12, 19), serious assault (134, 188), birth rate (20, 11), life expectancy (68, 12), infant mortality (29, 31), HIV/AIDS rate (2, 7), skin color (3, 2), and PPP–GNI (11,517, 10,450). Table 2 contains the correlation matrix for the variables, all of which were significant and in the expected direction. Table 3 presents the results of a principal components analysis performed on the variables along with a varimax rotation. All variables loaded on the first principal component, which explained 52% of the total variance, with loadings: IQ, .90; Homicide, .37, Rape, .32, Serious Assault, .23; Birth rate, −.84; Life expectancy, .93; Infant mortality, −.84; HIV/AIDS, −.69; Skin Color, −.91; and PPI–GNP, .78. However, there were two factors with eigenvalues greater than 1.0 (3.1, 1.2). A two-factor solution showed that HIV/AIDS and the crime variables combined to define a separate but correlated factor.

Table 3
Principal components analysis of correlations in Table 2.

Variable	First principal component analysis (1 Factor solution)	First principal component (2 factor solution)	Second principal component (2 factor solution)
Homicide	371	125	583
Rape	322	−038	983
Serious assault	225	−030	630
IQ	−895	−818	−304
Birth rate	836	919	−066
Life expectancy	−934	−898	−261
Infant mortality	839	884	−001
HIV/AIDS	686	427	712
Skin color	949	914	283
PPI–GNP	−658	−661	042
Life expectancy	−934	−898	−261

We examined the variables separately for each of the three macro-races: 7 East Asian countries; 45 European countries, and 22 Afro-Caribbean countries. The median PPI–GNP was highest in East Asian countries ($12,000), intermediate in European countries ($7400), and lowest in African and Black Caribbean countries ($1900). Across the three populations there was an "ecological correlation" of −.96 between crime and wealth (wealthier countries had less crime). Finer-grain analyses found that while wealth was negatively related to crime across European or East Asian countries, it was positively related to crime across African and Caribbean countries (i.e., the wealthier an African or Caribbean country, the greater was its rate of violent crime).

Given the criticisms of the Lynn and Vanhanen (2006) IQ data for Africa, we also examined the inter-correlations after excluding the 19 sub-Saharan African countries to see if the results remained with these African countries removed (Angola, Benin, Botswana, Burkina Faso, Cote d'Ivorie, Ethiopia, Gambia, Ghana, Madagascar, Malawi, Mauritania, Namibia, Niger, South Africa, Swaziland, Tanzania, Uganda, Zambia, and Zimbabwe). We found the relationship between crime and IQ held ($r = -0.35$; $P < 0.01$), although the one between crime and skin color did not (ns). The interpretation of this last null result however is problematic as the East Asian countries had very low rates of crime but not the lightest skin color. The sensitivity analysis conducted by dropping African countries created substantial range restriction in skin color and this range restriction likely contributed to the difference in results between the main analysis and the sensitivity analysis.

4. Discussion

Cross-national differences in rate of violent crime (murder, rape, and serious assault) were significantly correlated with a country's IQ scores (mean $r = -.25$, such that the higher the IQ, the lower the rate of crime); rate of HIV/AIDS (mean $r = .50$), life expectancy (mean $r = .21$), and skin color (mean $r = .23$) but not national income (mean $r = .00$). One reason that national income is not as good a predictor of the quality of human conditions as IQ is that other variables also influence economic growth, the most important of which are economic freedom (e.g., having a socialist or free market economy) and possession of natural resources (such as oil, valuable minerals). All these may affect per capita income and so weaken the predictive power of GDP compared to IQ which apparently does not vary as much within race, perhaps because it is more heritable (Lynn & Vanhanen, 2006, pp. 247–261).

In the current study, five major variables were found to correlate more highly with a biological variable (skin color) than with an economic variable (PPP–GNI). This extends previous work by Templer (2008). The finding that skin color shows substantial correlations with rates of violent crime confirms the importance of this variable, as originally identified by Templer and Arikawa (2006). It merits further research given the suggestion made by Jensen (2006) that pleiotropy (genes having more than one effect) may underlie both IQ and skin color. Skin color and IQ have been found to be correlated in

several studies of people of mixed-race ancestry (Jensen, 1998, 2006; Rushton, 2008; Rushton & Jensen, 2005, 2008).

It is interesting that the measures of national income correlated more highly with crime across races than they did within races, suggesting that racial IQ is the primary factor, not national income. Although several explanations are possible for these results, such as only wealthier nations have the infrastructure to gather and report crime statistics, it is also possible that wealth makes opportunities available for engaging in behavior not otherwise affordable. For example, in Africa, there is also a link between wealth and HIV/AIDS such that wealthier males turn their resources into additional sexual partners. African and Caribbean countries, as well as Black populations in the US, had the highest levels of HIV/AIDS whereas East Asian populations had the lowest (see Rushton & Bogaert, 1989, for review).

The results reported above did not depend on the particular selection of countries because when Rushton (1995) analyzed subsets of the countries from the ethnically more homogeneous northeast Asia, central Europe, and sub-Saharan Africa, the proportionate differences remained the same—or became even greater. Nor did the pattern alter when Rushton examined only Caribbean countries. The rate of total violent crime in six mainly White/Amerindian countries averaged 72 per 100,000, whereas in eight mainly Black countries it averaged 449 per 100,000.

One methodological limitation in this study is that we used only archival data assembled at the national aggregate level, which many have criticized for a lack of control over correlated factors (Barnett & Williams, 2004; Hunt & Sternberg, 2006). Many of the limitations and strengths of such data have been discussed by Lynn and Vanhanen (2006). Although Templer and Arikawa's (2006) results have been criticized on both theoretical and methodological grounds (Hunt & Sternberg, 2006), they have also been defended (Jensen, 2006), as well as corroborated and extended (Kanazawa, 2008; Templer, 2008).

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