



Racial and ethnic differences in psychopathic personality

Richard Lynn *

University of Ulster, Coleraine, Northern Ireland, BT52 1SA, UK

Received 19 June 2000; received in revised form 15 December 2000; accepted 27 January 2001

Abstract

This paper proposes that there are racial and ethnic differences in psychopathic personality conceptualised as a continuously distributed trait, such that high values of the trait are present in blacks and Native Americans, intermediate values in Hispanics, lower values in whites and the lowest values in East Asians. Part one of the paper sets out the evidence for this thesis. Part two applies the thesis to the unresolved problem in *The Bell Curve* that racial and ethnic differences in a number of social phenomena such as crime, welfare dependency, rates of marriage, etc. cannot be fully explained by differences in intelligence and proposes that some of the residual disparities are attributable to differences in psychopathic personality. Part three of the paper integrates the theory with Rushton's r-K theory of race differences. © 2001 Elsevier Science Ltd. All rights reserved.

Keywords: Psychopathic personality; Conduct disorder; Attention deficit hyperactivity disorder; Crime; Marriage; Sexual behaviour; Race differences; r-K theory

1. Introduction

This paper offers a contribution to a problem posed by Herrnstein and Murray (1994) in *The Bell Curve*. Herrnstein and Murray argue that racial and ethnic differences in a number of social phenomena such as crime, poverty, long-term unemployment, teenage pregnancy and the like are partly explicable in terms of differences in intelligence. They show, however, that differences in intelligence cannot explain entirely the racial and ethnic differences in these phenomena and they therefore conclude that some other factor or factors must also be involved. They conclude that "Some ethnic differences are not washed away by controlling for either intelligence or for any other variables that we examined. We leave those remaining differences unexplained and look forward to learning from our colleagues where the explanations lie" (p. 340).

* Present address: The Whitfield Institute, Whitfield Court, Glewstone, Ross-on-Wye, Herts, HR9 6AS, UK. Tel.: +44-1989-770908.

E-mail address: rlynn@uk.packardbell.org

In this paper it is proposed that a component in the solution to this problem lies in racial and ethnic differences in psychopathic personality considered as a continuously distributed personality trait. It is argued that of the major racial and ethnic groups, East Asians score lowest on psychopathic personality, whites score next lowest followed by Hispanics, while blacks and Native Americans score highest. Of these five populations, East Asians, whites, blacks and Native Americans can be considered as racial groups while Hispanics are an ethnic group from Latin America and the Caribbean with a common Spanish heritage. The first part of the paper sets out the evidence for this thesis. The second part applies the thesis to the solution of the problem raised by Herrnstein and Murray. The third part of the paper discusses the relation between the present thesis and Rushton's r-K theory of race differences.

2. Psychopathic personality

We begin by describing the nature of psychopathic personality. The condition was identified in the early nineteenth century by the British physician John Pritchard (1837) who proposed the term "moral imbecility" for those deficient in moral sense but whose intellectual ability was unimpaired. The term psychopathic personality was first used in 1915 by the German psychiatrist Emile Kraepelin (1915) and has been employed as a diagnostic label throughout the twentieth century. In 1941 the condition was described by Cleckley (1941) in what has become a classical book *The Mask of Sanity*. He described the criteria for the condition as being general poverty of affect, defective insight, absence of nervousness, lack of remorse or shame, superficial charm, pathological lying, egocentricity, inability to love, failure to establish close or intimate relationships, irresponsibility, impulsive antisocial acts, failure to learn from experience, reckless behaviour under the influence of alcohol, and a lack of long term goals.

In 1984 the American Psychiatric Association dropped the term psychopathic personality and replaced it with "anti-social personality disorder". Some authorities such as Lykken (1995) regard this as simply a synonym for psychopathic personality. Others, such as Hare (1994), consider that there is some difference between the two concepts and that anti-social personality disorder is a less satisfactory term because it fails to give sufficient emphasis to the psychological features as opposed to the behavioral characteristics of the condition. Despite these fine distinctions, for practical purposes psychopathic personality and anti-social personality disorder can be regarded as largely synonymous descriptions of the same condition.

In 1994 the American Psychiatric Association (1994) issued a revised Diagnostic Manual in which it listed 11 features of anti-social personality disorder. These are: (1) inability to sustain consistent work behavior; (2) failure to conform to social norms with respect to lawful behavior; (3) irritability and aggressivity, as indicated by frequent physical fights and assaults; (4) repeated failure to honor financial obligations; (5) failure to plan ahead or impulsivity; (6) no regard for truth, as indicated by repeated lying, use of aliases, or "conning" others; (7) recklessness regarding one's own or others' personal safety, as indicated by driving while intoxicated or recurrent speeding; (8) inability to function as a responsible parent; (9) failure to sustain a monogamous relationship for more than one year; (10) lacking remorse; and (11) the presence of conduct disorder in childhood. This is a useful list of the principal constituents of the condition, subject to the reservation that it does not explicitly include the deficiency of moral sense although this is

implicit in virtually all the listed behaviors. Despite the replacement of the concept of psychopathic personality with that of anti-social personality disorder by the American Psychiatric Association, many psychiatrists and psychologists such as Hare (1994) and Lykken (1995) regard the term psychopathic personality as preferable and continue to use it.

In recent years the most frequently used instrument for the assessment of psychopathic personality is Hare's Psychopathy Checklist (Hare, 1991, 1994; Harpur, Hart, & Hare, 1994). This consists of a list of 20 symptoms of psychopathic personality which are identified as present or absent by raters or by self-assessment. These symptoms fall into two main clusters or factors identified by factor analysis. The first of these is a syndrome of eight "emotional-interpersonal" characteristics (glibness/superficial charm; grandiose sense of self-worth; pathological lying; conning/manipulative; lack of remorse or guilt; shallow affect; callous, lack of empathy; failure to accept responsibility for actions). The second factor consists of a syndrome of nine "social deviance" characteristics (need for stimulation/proneness to boredom; parasitic lifestyle; poor behavior controls; early behavior problems; lack of realistic long-term goals; impulsivity; irresponsibility; juvenile delinquency; revocation of conditional release). The Psychopathic Checklist contains three further characteristics which load about equally on both factors. These are promiscuous sexual behavior; many short-term sexual relationships; and criminal versatility. The twenty items of the Psychopathy Checklist are scored 0 (No), 1 (Maybe) or 2 (Yes). This treats psychopathic personality as a continuously distributed personality trait with scores ranging between 0 and 40. Research using this instrument has shown a number of informative features of psychopathic personality such as the higher scores normally obtained by males but it has not been used to any significant scale to investigate racial and ethnic differences.

2.1. The MMPI Psychopathic Deviate Scale

The MMPI (Minnesota Multiphasic Personality Inventory) is a questionnaire consisting of a series of scales for the measurement of a variety of psychiatric conditions regarded as continuously distributed in the population, such as hysteria, mania and depression. The MMPI was constructed in the late 1930s by Hathaway and McKinley (1940) and is one of the most widely used instruments in personality research. It contains a scale for the measurement of psychopathic personality known as the Psychopathic Deviate Scale. This was constructed by writing a number of questions, giving them to criterion groups of those manifesting psychopathic behaviour and "normals", and selecting for the scale the questions best differentiating the two groups. The criterion group manifesting psychopathic behaviour consisted of 17–24 year olds appearing before the courts and referred for psychiatric examination because of their "long histories of delinquent-type behaviours such as stealing, lying, alcohol abuse, promiscuity, forgery and truancy" (Archer, 1997, p. 20). The common feature of this group has been described as their failure to "learn those anticipatory anxieties which operate to deter most people from committing anti-social behaviour" (Marks, Seeman, & Haller, 1974, p. 25). The manual describes those scoring high on the scale as follows: irresponsible, antisocial, aggressive, having recurrent marital and work problems, and underachieving (Hathaway & McKinley, 1989). A number of subsequent studies have shown that the Psychopathic Deviate scale differentiates delinquents and criminals from non-delinquents and non-criminals (e.g. Elion & Megargee, 1975).

During the 60 or so years following its publication the MMPI has been administered to numerous groups. Normative data for the means obtained in the United States by “normal” (i.e. non-psychiatric) samples of blacks, whites, ethnic Japanese Americans, Hispanics and Native Americans have been published by Dahlstrom, Lachar, and Dahlstrom (1986). I have calculated these data as *d* scores (differences expressed in standard deviation units) in relation to a white value of zero, positive signs indicating scores higher than those of whites and negative signs indicating signs lower than those of whites. Scores of males and females have been combined giving equal weight to both sexes. The results of these calculations are shown in the first row of Table 1. The ethnic Japanese are entered in the table under “E. Asians” (East Asians) because “Asians” is the term most frequently used for this group in the American literature and I have added the prefix “East” to differentiate them from South Asians from the Indian sub-Continent. Most American Asians are ethnic Chinese, Japanese, Koreans and Filipinos, although they also include Vietnamese and some others from southeast Asia. Hispanics are not a homogeneous racial group but rather an ethnic group from Spanish speaking Latin America and the Caribbean which includes ethnic Europeans, Native Americans, blacks and racial hybrids. The data set out in the first row of Table 1 show that blacks and Native Americans obtain higher means than whites on the scale (by $0.29d$ and $0.44d$, respectively), Hispanics obtain the same mean as whites, while Japanese Americans obtain a lower mean ($-0.31d$).

The MMPI was revised and standardised in the second half of the 1980s. The revised version of the test is called the MMPI-2 and much useful information about the test is provided in the manual (Hathaway & McKinley, 1989). The standardisation sample numbered 2500 and was selected to match the national population of the United States in terms of geographical location, age, educational level, socio-economic status, earnings, marital status and ethnicity. Of the 54 questions in the Psychopathic Deviate scale of the original test, four were replaced in the MMPI-2. The manual provides means and standard deviations for five racial and ethnic groups in the standardisation sample. These are whites, blacks, Asians, native Americans and Hispanics. No details are given regarding the national or ethnic origins of the Asian group, but as noted the majority of these in the United States are ethnic Chinese, Japanese, Koreans and Filipinos. I have converted the means of the five groups to *d* scores in relation to a white zero and combined males and females, in the same way as for the original MMPI. These results are shown in row 2 of Table 1. The results are consistent with those of the original MMPI in so far as blacks and Native Americans obtain higher mean scores than whites, while East Asians obtain lower scores. The result for Hispanics is discrepant in so far as they obtain a substantially higher mean than whites

Table 1
Psychopathic deviate scale of the MMP1 (*d*)

No.	Location	Test	Blacks	E. Asians	Hispanics	N. Americans	Whites	Reference
1	USA	MMP1	0.29	-0.31	0.00	0.44	0.00	Dahlstrom et al., 1986
2	USA	MMP1-2	0.48	-0.18	0.70	0.74	0.00	Hathaway & McKinley, 1989
3	Japan	MMP1-2		-0.36				Japanese MMP1, 1993
4	Nigeria	MMP1-2	0.50					Nzewi, 1998
5	USA	MMP1-A	0.33		0.36		0.00	Archer, 1997
6	Mean		0.40	-0.28	0.35	0.59	0.00	

in the MMPI-2 standardization sample but the same mean as whites in the original MMPI. Row 3 gives data for the Japanese from the Japanese manual of the MMPI-2 based on a nationally representative standardisation sample of 1022. It will be seen that the Japanese obtain a lower mean score than American whites. Row 4 gives data from an administration of the MMPI-2 to 200 Nigerian male and female students in Nigeria and shows that they obtained an average score half a standard deviation higher than white American students.

In 1992 the MMPI-A was published as a version of the test designed for adolescents. Normative data for blacks, whites and “others” have been provided by Archer (1997) and are shown in row 5. In this row “others” are entered as Hispanics because these are by far the largest third ethnic group. It will be seen that blacks and Hispanics score about a third of a standard deviation higher than whites.

The racial and ethnic differences in psychopathic deviance scores presented in Table 1 show reasonably consistent results for blacks and Native Americans, both of which score consistently higher than whites in the range of 0.29 – $0.74d$, and also for East Asians who consistently score lower than whites in the range of -0.18 to $-0.36d$. The results for Hispanics are less consistent but average out at $0.35d$. To obtain overall estimates for the five groups the results in the table have been averaged giving equal weight to each study. These averages are shown in the bottom row of the table and indicate the highest level of psychopathic personality in Native Americans, followed by blacks, Hispanics, whites and East Asians. It is proposed that these means should be adopted provisionally as the best available estimates of the racial and ethnic differences in psychopathic personality.

2.2. *Conduct disorder*

The concepts of psychopathic personality and anti-social personality disorder are not used for children or young adolescents up to the age of 15 years. Children and young adolescents manifesting psychopathic and anti-social behaviours are instead regarded as having conduct disorders. The principal criteria set out by the American Psychiatric Association (1994) for a diagnosis of conduct disorder are persistent stealing, lying, truancy, running away from home, fighting, arson, burglary, vandalism, sexual precocity and cruelty. Childhood conduct disorder is therefore an analogue of psychopathic personality in older adolescents and adults and a diagnosis of psychopathic personality is not normally made without evidence of conduct disorder in childhood. A number of studies have shown that conduct disorder in children is a frequent precursor of psychopathic behaviour in later adolescence and adulthood (e.g. Bernstein, Cohen, Skodal, Bezirgianian, & Brook, 1996; Loeber, 1990; Mealy, 1995). Conduct disorder is most generally measured by rating scales of which the most widely used are the Child Behaviour Checklist (CBCL) constructed by Achenbach (1992) and the Teachers Rating Scale (TRS) constructed by Connors (1989). These rating scales consist of a number of the expressions of conduct disorder and the teacher, or sometimes the parent, identifies those manifested by the child being assessed. The ratings are summed to give a score.

A number of studies reporting differences in mean scores obtained by children of different racial and ethnic groups are shown in Table 2. Where the results are reported as means and standard deviations, the racial and ethnic differences have been calculated as d scores, as in Table 1. The first row presents data for blacks and whites from a study of 1027 children in North

Table 2
Conduct disorders

No.	Location	Statistic	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	<i>d</i>	0.53				0.00		Epstein, March, Connors, & Jackson, 1998
2	USA	<i>d</i>	0.49	-1.12			0.00		Feng & Cartledge, 1996
3	USA	<i>d</i>				0.35	0.00		Dion, Gotowiec, & Beiser, 1998
4	USA	<i>d</i>		-0.56			0.00		Chang, Morrissy, & Koplewicz, 1995
5	USA	Percent	5.9	3.0	8.0		3.4		Miller, Klein, & Piacentini, 1995
6	USA	Percent				17			Kunitz, Gabriel, & Levy, 1999
7	Hawaii	<i>d</i>		-0.33			0.00		Loo & Rapport, 1998
8	Hong Kong	<i>d</i>		-0.49			0.00		Luk & Leung, 1989
9	Britain	Percent	38				10		Rutter, Yule, Berger, Yule, Morton, & Bagley, 1974
10	Mauritius		High					Low	Raine, Venables, & Mednick, 1997
11	USA	OR	1.6		1		1		McDermott & Spencer, 1997
12	USA	Percent	51	37	52		39		Ellikson & Morton, 1999
13	Netherlands	Percent	33				15	17	Junger & Polder, 1993

Carolina assessed for conduct disorder by teachers and shows mean scores about half a standard deviation higher in blacks as compared with whites. Rows 2–5 present further data from various locations in continental United States in which conduct disorders were assessed by teachers. Row 6 presents data obtained from a retrospective study of Native Americans. The general pattern of these results from continental United States is for conduct disorder to be most prevalent among blacks, Hispanics and Native Americans and least prevalent among East Asians, with whites intermediate.

Row 7 presents data from Hawaii for white and East Asian children, all of whom were ethnic Chinese, Japanese, Korean or Southeast Asian, and shows lower conduct disorder among the East Asians. This study also reported the mean of a sample of native Hawaiian and part Hawaiian children who scored slightly but not significantly higher than white children. Row 8 presents data for children in Hong Kong compared with white American children and shows lower scores for conduct disorder among the Hong Kong Chinese. Row 9 presents data for Britain with rather high percentages of conduct disorder presumably assessed according to a relaxed criterion but showing the same substantially higher prevalence of conduct disorder among blacks as among whites as is present in the United states. Row 10 presents data for Mauritius in which the two

major racial groups are ethnic Indians and blacks. The authors of the study state that conduct disorders of aggression and anti-social behaviour were both significantly greater among blacks than among Indians but do not give the figures. Row 11 presents data from a study of a national sample of 1400 5–17 year olds assessed for the presence of “oppositional defiant” behavior consisting of “irascibility, covert aggression and defiance”. The prevalence of this is expressed as odds ratios and show that this is 60 per cent more frequent among blacks as among whites and Hispanics. Row 12 presents the results of a study of 4347 16 year olds in California and Oregon who reported on their own “deviant behaviors” consisting of cheating on a test, truancy, being sent out of class and stealing. The results show greater deviance among blacks and Hispanics than among whites and Asians. The high percentages for all groups indicate that the criterion for deviance was more relaxed than for conduct disorders. Row 13 presents data from The Netherlands in which 410 Indians (originally from the Indian sub-Continent) and blacks from the former Dutch colony of Surinam and white 12–17-year-old boys reported on their own delinquent behaviors of stealing, fighting, vandalism, etc. and shows the prevalence of these delinquent behaviors about twice as great among blacks as among the South Asians and whites. As with the data set out in row 12, the high percentages show that these were milder forms of deviance than fully expressed conduct disorder. Inspection of the data in the table will show that black, Hispanic and Native American children consistently manifest greater conduct disorder and, in the case of the last row, deviance, while East Asian children consistently show less conduct disorder, as compared with white.

2.3. School suspensions and exclusions

Children are sometimes suspended or excluded from schools because of constant misbehavior. The most common reasons for suspensions and exclusion are aggression to other children and teachers. In England head teachers have the right to exclude children where “allowing the child to remain in school would be seriously detrimental to the education or welfare of the pupil, or that of others at the school” (Gillborn & Gipps, 1996, p. 52). The principal reasons for exclusions are “disobedience in various forms — constantly refusing to comply with school rules, verbal abuse or insolence to teachers” (Gillborn & Gipps, 1996, p. 53). In both the United States and Britain exclusions can be either temporary or permanent, and are designated “suspensions” and “expulsions”, respectively, in the United States and as “fixed term” and “permanent”, respectively, in Britain. Fixed term exclusions are much more commonly used than permanent exclusions. Suspensions and exclusions are a measure of conduct disorders and can usefully be examined for the presence of racial and ethnic differences.

A number of studies of the percentages of suspensions and exclusions of children of different racial and ethnic groups are shown in Table 3. The first four rows show percentages of blacks and whites suspended and excluded from schools in various locations in the United States. Row 5 also includes Asians; it does not give the percentages but reports only that the rates for Asians are significantly lower than those of whites while the rates for blacks are significantly higher. Row 6 presents black–white differences in suspensions and exclusions as an odds ratio in which the rate for whites is set at 1 and in relation to this the rate for blacks is 3.5, which is about the same ratio as in the first four studies. Row 7 presents the results of the largest study ever carried out of racial and ethnic differences in suspensions and exclusions in the United States. It consists of data

collected in 1999 for 1.8 million school children drawn from public schools in Chicago, San Francisco, Durham NC, Denver, Austin TX, Boston, Los Angeles, Miami, Missoula, Providence, and Salem OR. Data for the five major racial and ethnic groups show the greatest suspension and expulsion rate for blacks, followed in descending order by Native Americans, Hispanics, whites and East Asians. Row 8 presents data on exclusions for England. Statistics of exclusions from schools for the major racial and ethnic groups in English schools are collected by the Government Department for Education and Employment and have been analysed for all exclusions, permanent and fixed term, for the school year 1993/1994 by Gillborn and Gipps (1996). The major racial and ethnic groups in England consist of mainly indigenous whites, blacks from the Caribbean and sub-Saharan Africa, South Asians from the Indian sub-Continent and Chinese principally from Hong Kong and Malaysia. The percentages of these groups excluded from secondary schools calculated for approximately 30% of English secondary schools and based on approximately 1 million children are shown in the last row of Table 3. It will be seen that the results are consistent with the American data in so far as black children are excluded about four times as frequently as white, South Asian children a little less frequently and Chinese children about one fifth as frequently.

2.4. *Attention deficit hyperactivity disorder*

Attention Deficit Hyperactivity Disorder (ADHD) consists of the inability to pay attention, restlessness, distractibility and hyperactivity and is a prominent feature of children with conduct disorder. In a recent review of research on the condition, Barkley (1997, p. 65) writes that “ADHD is associated with greater risks for low academic achievement, poor school performance, retention in grade, school suspensions and expulsions, poor peer and family relations, anxiety and depression, aggression, conduct problems and delinquency, early substance experimentation and abuse, driving accidents and speeding violations, as well as difficulties in adult social relationships, marriage and employment”. ADHD in childhood persists into adolescence in around 50–80% of

Table 3
School suspensions and exclusions

No.	Country	Statistic	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	Percent	32.1				12.8		Backman, 1970
2	USA	Percent	12.8				4.1		Children’s Defence Fund, 1985
3	USA	Percent	22.0				7.6		Elliott, Ageton, & Huizinga, 1980
4	USA	Percent	19.6				3.7		Munsch & Wampler, 1993
5	USA	Percent	High	Low			Int		Costenbader & Markson, 1994
6	USA	OR	3.5				1		Bickel & Qualls, 1980
7	USA	Percent	12.8	3.2	9.5	11.0	8.4		Gordon, Piana, & Keleher, 2000
8	England	Percent	11.0	0.5			2.7	2.5	Gillborn & Gripes, 1996

cases and into adulthood in about 30–50% of cases, where it is associated with psychopathic behaviour and crime (Barkley, 1997; Vitelli, 1996).

The close association between ADHD and conduct disorder in childhood and psychopathic behaviour and crime in adulthood leads to the expectation that the racial differences present in psychopathic personality and conduct disorder should also appear in ADHS. Several studies summarised in Table 4 have found that this is the case. The first row gives differences in restlessness and distractibility assessed by teachers in a sample of 1337 fourth graders and shows high scores among blacks and low scores among Asians, with whites and Hispanics intermediate. Row 2 gives data for ADHD assessed by a teacher rating scale for 2000 children and adolescents for a representative sample for the United States and shows scores for ADHD about half a standard deviation higher among blacks than among whites. Row 3 gives data from another study confirming this. Row 4 provides further confirmation in a study carried out in a large American midwestern city and also gives information for East Asians, who score almost a full standard deviation lower than whites. Row 5 confirms the low scores of East Asian children from a study carried out in New York. Row 6 presents the incidence of ADHD from a study carried out in Texas which gives the percentages of children scoring above a threshold score and shows that the percentage of blacks with ADHD was about double that of whites, while the percentage of Hispanics was about half. Row 7 presents data from a study of the incidence of ADHD among Asians in New York and shows that this was about one third of that of whites found in the Texas study given in row 6. Row 8 presents data from a national American sample of 1400 5–17 year olds assessed by teachers in which the incidence of ADHD is calculated as odds ratios; it shows that the incidence of ADHD is 30 per cent greater among blacks and 20 per cent greater among Hispanics, as compared with whites. Row 9 shows data from Hawaii showing that the incidence of ADHD is lower among ethnic Chinese and Japanese than among whites. Row 10 gives data for the scores on ADHD of Chinese children in Hong Kong compared with American children and shows that the Chinese children score a full standard deviation below the American. Row 11 presents data from South Africa giving the percentages of children rated by teachers as having

Table 4
Attention deficit hyperactivity disorder

No.	Location	Statistic	Blacks	E. Asians	Hispanics	Whites	S. Asians	Reference
1	USA	<i>d</i>	0.59	−0.71	−0.01	0.00		Spring, Blunden, Greenberg, & Yellin, 1977
2	USA	<i>d</i>	0.46		0.15	0.00		Du Paul, Power, Anastopoulos, Reid, McGoey, & Ikeda, 1997
3	USA	<i>d</i>	0.42			0.00		Epstein et al., 1998
4	USA	<i>d</i>	0.59	−0.89		0.00		Feng & Cartledge, 1996
5	USA	<i>d</i>		−0.35		0.00		Chang et al., 1995
6	USA	Percent	29.6		7.2	15.2		Langsdorf, Anderson, Waechter, Madrigal, & Juarez, 1979
7	USA	Percent		5.2				Yao, Solanto, & Wender, 1988
8	USA	OR	1.3		1.2	1.0		McDermott & Spencer, 1997
9	Hawaii	Percent		8.7		8.0		Loo & Rapport, 1998
10	Hong Kong	<i>d</i>		−1.0		0.00		Luk & Leung, 1989
11	South Africa	Percent	7.4			4.8	3.9	Yao et al., 1988

ADHD and shows a higher prevalence among blacks and a slightly lower prevalence among ethnic Indians, as compared with whites. The data set out in Table 4 show higher rates of ADHD in blacks than in whites and lower rates in ethnic Chinese, consistent with the results presented in previous tables. The results for Hispanics are inconsistent, the results in row 1 showing the same level as among whites, those in rows 2 and 8 indicating a higher prevalence of ADHD than for whites, while the results in row 6 indicate a lower prevalence.

2.5. *Moral understanding*

Weakness of moral understanding is a central feature of psychopathic personality. A general theory of the development of moral understanding and a test to measure it have been formulated by Kohlberg (1976). Over two dozen studies have found that delinquents perform poorly on this test (Raine, 1993). A similar test has been developed by Rest (1979, 1986) and is called the Defining Issues Test. This consists of a number of stories in which the leading actor is confronted with a moral dilemma. The problem is to discern the moral principle involved and choose the course of action consistent with it. This test has been given to high school students in several countries with different racial populations and the results reported by Rest (1986) for the United States, Belize, Trinidad and Hong Kong, by Park and Johnson (1984) for South Korea, and by Gielen, Reid, and Avellani (1989) for Jamaica. The mean *d* scores for these national samples in relation to American scores of zero are shown in Table 5. Minus signs indicate *d* scores lower than those of the United States and plus signs indicate *d* scores higher than those of the United States. These data are all based on the age groups 14–18. It will be noted that high school students in the predominantly black populations of Jamaica, Belize and Trinidad obtain lower scores than Americans, while high school students in Hong Kong and South Korea obtain higher scores.

2.6. *Honouring financial obligations*

The APA lists “persistent failure to honor financial obligations” among the characteristics of psychopathic personality. An index of this characteristic is available in the default rates on student loans. About half of American students at colleges and universities take out loans which they are required to repay after graduation. Not all graduates repay these loans. Racial and ethnic differences in loan default rates have been calculated from the data of the 1987 National Postsecondary Student Aid Study consisting of 6338 cases with complete information on loans,

Table 5
Moral values assessed by the DIT (*d*)

No.	Location	Blacks	E. Asians	Whites	Reference
1	USA			0.00	Rest, 1986
2	Hong Kong		1.31	0.00	Rest, 1986
3	South Korea		0.71	0.00	Park & Johnson, 1984
4	Belize	−0.48		0.00	Rest, 1986
5	Trinidad	−0.45		0.00	Rest, 1986
6	Jamaica	−0.51		0.00	Gielen et al., 1989

racial and ethnic type and a number of other characteristics. In the total sample, 19.2% defaulted on their repayments. The percentages of loan defaulters for the five major American racial and ethnic groups are shown in row 1 of Table 6. It will be seen that the default rates among blacks and Native Americans are the highest and are about three times greater than those of whites. Hispanics fall about half way between these two groups and whites. An atypical feature of the results is the rather high default rates among the Asians.

A further index of the failure to honor financial obligations consists of poor credit ratings. These are made on the basis of records of the non-payment of debts, unacceptably late payments and bankruptcy. A report by the American firm Freddie Mac of 12,000 households in 1999 found the highest percentage of poor credit ratings among blacks and the next highest among Hispanics, while whites had the lowest percentage of poor credit ratings. The figures obtained in this study are entered in row 2 of Table 6.

2.7. Aggression

A prominent feature of psychopathic personality is a high level of aggression or, as described by the APA, “irritability and aggressivity, as indicated by frequent physical fights and assaults”. This characteristic can be expressed in a number of ways including homicide, robbery, assault, rape, wife battering and husband battering. Evidence for racial and ethnic differences in all of these behaviors is summarized in Table 7. Rows 1 and 2 present data for the United States for homicide rates per 10,000 of the population for blacks and whites for 1979–1981 and show the convictions for homicide for black males was about six times greater than for whites and the rate for black females about four times greater than for whites. Row 3 gives American data for homicides for 1994 for five racial groups expressed as odds ratios in relation to a white rate of 1.0 and shows black rates 11 times greater than whites, Hispanics two and a half times greater, Native Americans twice as great and East Asians only 60 per cent the rate of whites. Rows 4 and 5 present homicide data for South Africa and show the black male rate about six times greater than the white and the black female rate about three times the white rate. Given also are data for South Asians, originally from the Indian sub-Continent, showing male rates about double those of whites but female rates about half.

Row 6 presents American robbery data averaged over the years 1957–1988 and shows the rate for blacks about 12 times greater than that for whites. Rows 7 and 8 present data for assault and robbery showing highest rates for blacks followed in descending order by Hispanics, Native Americans, whites and East Asians. With regard to rape, the earlier American research has been reviewed by Katz and Mazur (1979) who concluded that approximately 82 per cent of rapists and 80 per cent of their victims were black, as compared with approximately 12 per cent of blacks in

Table 6
Honouring financial obligations (percentages)

No.	Measure	Blacks	E. Asians	Hispanics	N. Americans	Whites	Reference
1	Student loan default	55.5	24.5	20.2	44.7	15	Volkwein, Szelest, Cabrera, & Napierski-Prancl, 1998
2	Poor credit ratings	48		34		27	Holmes, 1999

Table 7
Aggression

No.	Location	Measure	Statistic	Year	Sex	Blacks	E. Asians	Hispanics	N. Americans	Whites	Reference
1	USA	Homicide	Per 10,000	1979–1981	m	6.4				1.0	Lester, 1989
2	USA	Homicide	Per 10,000	1979–1981	f	1.3				0.3	Lester, 1989
3	USA	Homicide	OR	1994	m/f	11.0	0.6	2.5	2.0	1.0	Taylor & Whitney, 1999
4	South Africa	Homicide	Per 10,000	1997–1981	m	4.1				0.7	Lester, 1989
5	South Africa	Homicide	Per 10,000	1979–1981	f	0.6				0.2	Lester, 1989
6	USA	Robbery	Per 10,000	1957–1988	m/f	27.7				2.3	Lafree, Drass, & O'Day, 1992
7	USA	Assault	OR	1994	m/f	5.0	0.5	3.0	2.0	1.0	Taylor & Whitney, 1999
8	USA	Robbery	OR	1994	m/f	11.2	0.8	3.0	1.7	1.0	Taylor & Whitney, 1999
9	USA	Rape	OR	1994	m	5.5	0.4	3.0	2.1	1.0	Taylor & Whitney, 1999
10	USA	Assault	Percent		m/f	4.8				2.1	Schwarz, Grisso, Miles, Holmes, Wishner, & Sutton, 1994
11	USA	Husband assault	Percent	1975	m	11.3				3.0	Straus, Gelles, & Steinmetz, 1980
12	USA	Wife assault	Percent	1975	f	7.6				4.1	Straus et al., 1980
13	USA	Husband assault	Percent	1976	m	11				3	Cazenaze & Straus, 1979
14	USA	Wife assault	Percent	1976	f	8				4	Cazenaze & Straus, 1979
15	USA	Husband assault	Percent	1988	m	6.4			7.2	2.8	Bachman, 1992
16	USA	Wife assault	Percent	1985	f	10.8				3.9	Hampton et al., 1989
17	USA	Husband assault	Percent	1990–1991	m	8.0			12.1	4.8	Gazmararian, Adams, & Saltzman, 1995
18	USA	Spouse abuse	Percent	1989–1997	m/f	2.8				0.9	Newby, McCarrroll, Thayer, Norwood, Fullerton, & Ursano, 2000
19	USA	Assault	Percent	1989	m	51.6			68.1	48.9	Gruber, DiClemente, & Anderson, 1996
20	USA	Assault	Percent	1989	f	34.5			44.0	28.5	Gruber et al., 1996
21	USA	Rape	Percent	1989	m	11.7			10.6	4.6	Gruber et al., 1996
22	USA	Rape	Percent	1993	m	9.1				3.8	Valois et al., 1999
23	World	Violent Crimes	Per 1,000	1985	m/f	1.53	0.38			0.76	Rushton, 2000

the population. Data for 1994 are presented in row 9. They confirm the high rate of rape by blacks at five and a half times greater than that of whites and show rape two to three times more prevalent among Hispanics and Native Americans, as compared with whites, while among East Asians rape is about half the white rate.

Row 10 presents the results of a study of “interpersonal intentional injuries” or assaults for 10–19 year olds attending emergency departments of hospitals for treatment. It compares the numbers of these as percentages of the populations of blacks in Philadelphia and whites in Massachusetts and shows the injuries prevalence rate among blacks about double that among whites.

We turn next to domestic violence occurring in the family. Row 11 shows data for the rate of severe violence by husbands towards their wives found in an analysis of the First National Family Violence Survey and shows almost four times as much physical abuse and assaults by black husbands as compared with white. Row 12 shows a greater rate of severe violence by black wives against their husbands than by white wives against their husbands from the same data set. Rows 13 and 14 present the results from a national probability sample of 2134 American families and shows that the percentages of black husbands who had beaten their wives during the last year was almost four times as great as that of white, while the percentages of black wives who had beaten their husbands was twice as great as that of white. Row 15 presents the results of an analysis of the Second National Family Violence Survey for rates of severe violence by husbands towards their wives and shows that husband assault on their wives is more than twice as common among both blacks and Native Americans as among whites. Row 16 shows rates of severe violence by wives towards their husbands from the same data set and confirms that violence by wives is more than twice as prevalent among black couples as among white. Row 17 presents the results of a study of 12,612 young mothers who had been subjected to violent physical assaults by their husbands or partners while they were pregnant and shows substantially higher rates of assaults experienced by blacks and Native Americans as by whites. Row 18 presents the results of a study of spouse abuse in the US military during the years 1989–1987 and shows the rate of abuse by blacks slightly more than three times greater than abuse by whites. There are no reliable data for the rate of violence between spouses among Asian Americans according to Jasinski and Williams (1998).

Rows 19–21 present the results of a study of 6159 15–18 year olds in Minnesota asked in a questionnaire whether they had ever committed violent assaults or rape. The highest percentages of violent assaults were found among Native Americans followed by blacks, and the lowest percentages were among whites. For rape, the highest percentage was found for blacks followed by Native Americans, and the lowest percentage among whites. Row 22 presents data from a study of 3805 15–18 year olds in which about two and a half times as many black youths said they had carried out rapes as white youths.

Row 23 presents the results of a study of world wide rates of homicide, rape and serious assault for East Asian, white and sub-Saharan nations for 1986 and shows these crimes of aggression and violence highest among the black populations, intermediate among the whites and lowest among the East Asians.

2.8. *Crime*

Psychopathic personality is frequently expressed in crime or, as the APA expresses it, “failure to conform to social norms with respect to lawful behavior”. All the forms of aggression set out

in Table 7 are crimes but crime is a broader category of behavior than aggression. Most crimes consist of theft and do not involve aggression or violence. There is an association between psychopathic personality and crime because the high aggression of psychopaths leads them to commit crimes of violence of the kind listed in Table 7 and also because their weak moral sense leads them to commit other kinds of non violent crime. Lykken (1995) considers that more than half of those in prison are psychopaths. A review of the research on the relation between psychopathic personality and crime by Moran (1999) concludes that around 60 per cent of males in prison are psychopaths. A report issued by the Correctional Service of Canada (1990) estimates that approximately 75 per cent of male prisoners are psychopaths. Hare (1983) has estimated the percentage at between 40 and 50 per cent while Guze (1976) estimated it at 78% for male prisoners and 68% for female. It is difficult to assess the precise proportion of prisoners who are psychopaths because it is frequently in their interests to conceal the extent of their psychopathic personality in order to secure early release, parole and privileges. Nevertheless it is indisputable that psychopathic personality is relatively high among criminals, and particularly among those convicted of sufficiently serious crimes to be imprisoned. We should therefore expect that the racial and ethnic differences in psychopathic personality should appear in statistics of rates of crime and imprisonment.

There is a considerable research literature showing that in the United States blacks have higher crime rates than whites (Ellis, 1990; Rushton, 2000). Racial and ethnic differences in rates of crime involving aggression and violence have been shown in Table 7. Differences in crimes not involving violence and in imprisonment rates for all crimes, many of which do not entail violence, are presented in Table 8. Row one presents figures for burglary by blacks and whites in the United States over the years 1957–1988 and shows that the rate for blacks was about three and a half times greater than among whites. Row 2 shows statistics for car theft for 1994 expressed as odds ratios and shows the rate of theft highest for blacks followed in descending order by Hispanics,

Table 8
Crime (per 10,000 population)

No.	Location	Measure	Year	Sex	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	Burglary	1987–1988	m/f	51.3				14.8		Lafree et al., 1992
2	USA	Car theft: OR	1994	m/f	5.6	0.8	3.0	2.6	1.0		Taylor & Whitney, 1999
3	USA	Recidivism	1958	m	1100				300		Tracy, Wolfgang, & Figlio, 1990
4	USA	Prison	1994	m/f	157.1	9.1	68.8	51.9	19.3		Taylor & Whitney, 1999
5	England	Prison	1993	m	211.8				33.1	32.9	Smith, 1997
6	England	Prison	1993	m	203.9				34.5	25.8	Smith, 1997
7	Canada	Prison	1992	m/f	369	35		199	71	46	Ontario, 1996
8	France	Prison	1995	m/f	54.6				6.7		Tournier, 1997
9	Sweden	Crime	1985–1989	m/f	2.4	1.1			1.0		Martens, 1997
10	USA	Prison	1990	m/f	186				29		Amar, 1998

Native Americans whites and East Asians. Row 3 presents the results of a study of a cohort of boys born in Philadelphia in 1958 and followed up into adulthood. The results were that 11 per cent of blacks became recidivists as compared with 3 per cent of whites. Row 4 presents rates of imprisonment for 1994 for the five major American racial and ethnic groups calculated from the annual crime statistics published by the American Department of Justice. It will be seen that blacks have the greatest incarceration rate, followed in descending order by Hispanics, Native Americans, whites and East Asians.

Row 5 gives the imprisonment rates in England for 20–39-year-old men for blacks, whites and South Asians and shows that the incarceration rate for blacks is about six and a half times greater than that for whites and South Asians. Row 6 presents imprisonment rates for England for 16–19-year-old men and shows that the rate for blacks is about six times greater than that for whites, while the rate for South Asians is about two thirds that of whites. Row 7 gives data for the Canadian province of Ontario consisting of prison admissions for 1992 and shows admissions of blacks about five times greater than those of whites and admissions of Native Americans about two and a half times those of whites, while admissions for East Asians are about half those for South Asians and about two thirds those of whites. These admission figures are higher than the imprisonment rates given elsewhere in the table, which are snapshots for those in prison on a particular date of the year and which are lower than admission figures. Row 8 gives data for France showing imprisonment rates of blacks about eight times greater than those of whites. Row 9 presents data for Sweden calculated as odds ratios and shows the imprisonment of blacks about two and a half times greater than that of whites and East Asians.

2.9. Long-term monogamous relationships

A prominent feature of psychopathic personality is a low propensity to form long-term monogamous pair bonds with members of the opposite sex. This incapacity is one of the features of anti-social personality disorder listed by the American Psychiatric Association as “failure to sustain a monogamous relationship for more than one year”. This failure is principally due to a reduced capacity to experience love and the need to form long term and committed relationships. Thus Lykken (1995, p. 26) writes of the psychopath’s “undeveloped ability to love or affiliate with others” and Hare (1994, pp. 52, 63) writes that “psychopaths view people as little more than objects to be used for their own gratification” and “equate love with sexual arousal”.

Marriage is the most explicit expression of the willingness to enter into a committed long-term relationship based on love. Research by Forste and Tanfer (1996) has shown that couples who marry are more committed to each other than those who co-habit. As two American psychologists have written: “In its purest or ideal form, husband-wife marriage is monogamous, eternal and forsakes all other relationships” (Staples & Johnson, 1993, p.139). Several American studies have shown that blacks attach less value to marriage than whites. For instance, Trent and South (1992) found that blacks are less likely than whites to agree that “marriage is for life”. Staples and Johnson (1993, p. 164) write that “Blacks do not rank marriage as highly as whites” and that “Black Americans’ acceptance of this form of relationship is inconsistent with their African heritage”. Broman (1993) in a study of a national American sample of 2059 married individuals found that “Blacks are significantly less likely to feel that their marriages are harmonious and are significantly less likely to be satisfied with their marriages” (p. 726).

Studies of racial and ethnic differences in attitudes to love and marriage are summarized in Table 9. Rows 1–4 present the results of a questionnaire study of black and white students' attitudes to love, marriage and sex carried out on 1132 students at Rutgers University. Rows 1 and 2 give results for the question "I think about marriage: very frequently, frequently, sometimes, never". Many more whites than blacks gave the answers "very frequently or frequently", as shown for males in row one of Table 9 and for females in row two. The result suggests that whites are more concerned with finding a partner with whom to form a long-term relationship based on love and marriage. The second question was "I think that love and sexual intercourse should be almost always related or very related". The results given in rows 3 and 4 of Table 9 show a much greater endorsement of this statement by white males than by black, suggesting a greater valuation of love by whites, and a slightly greater endorsement by white females as compared with black.

The results of a further study of racial differences in attitudes to marriage are shown in rows 5–8 derived from an analysis of the American National Survey of Families and Households, a national probability sample of 13,017 adults interviewed in 1987–1988. The data consist of those in the sample aged 19–35 who were unmarried and not cohabiting and had responded to the question "I would like to get married someday". The responses were scored on a strongly agree–strongly disagree scale. The results for black, white and Hispanic males and females, expressed as *d* scores from whites, are shown in rows five and six of Table 9. The results show that black males and females both have less desire to be married than whites. The difference is greater for males, consistent with the results in the first two rows of the table. The results for the Hispanic males and females are inconsistent, with Hispanic males having a stronger desire to be married than whites but Hispanic females having a less strong desire to be married. The author of the study attributes the strong desire of Hispanic males to be married to the large numbers of them relative to Hispanic females arising from greater numbers of male immigrants. The ratio of unmarried men to women in this age group of Hispanics is 1.38:1. This tends to make Hispanic males keen to marry in order to secure a mate. This study was also analysed for the percentages of blacks, Hispanics and whites who expressed no desire for marriage. These are given for males in row 7 and for females in row 8. Notice that greater percentages of both black males and black females

Table 9
Attitudes to marriage (percentages)

No.	Measure	Sex	Statistic	Blacks	Hispanics	Whites	Reference
1	I think about marriage:	m	Percent	3.3		20.2	Houston, 1981
2	Very frequently, frequently	f	Percent	29.5		39.7	Houston, 1981
3	Love and sexual intercourse	m	Percent	29.2		61.7	Houston, 1981
4	should be related	f	Pervent	76.3		79.1	Houston, 1981
5	I would like to get married	m	<i>d</i>	−0.31	0.34	0.00	South, 1993
6	I would like to get married	f	<i>d</i>	−0.16	−0.22	0.00	South, 1993
7	No desire for marriage	m	<i>d</i>	23.4	8.7	15.4	South, 1993
8	No desire for marriage	f	<i>d</i>	21.8	25.3	17.1	South, 1993
9	Conjugal love scale	m/f	<i>d</i>	−0.34		0.00	Munro & Adams, 1978; Philbrick, Thomas, Crester, & Leon, 1988

have no desire to be married, as compared with whites. Hispanic females also have a low desire to be married, as compared with whites but Hispanic males have a greater desire to be married, consistent with the results in row 5 and probably also explicable in terms of the shortage of Hispanic females. A further instrument for measuring attitudes to marriage is the Conjugal Love Scale, a questionnaire for the measurement of the strength of commitment to married love. Results for 325 whites and for 106 blacks are shown in row 9 and show a black d score of -0.34 , indicating that blacks have a lower commitment to married love than whites.

The propensity to form monogamous relationships based on love can also be measured by the extent to which people enter into marriage or stable co-habitation. Racial and ethnic differences in marriage are shown for the United States, Britain and France in the first nine rows of Table 10. The first two rows give American data provided by Raley (1996) from an analysis of the National Survey of Families and Households of 1988 of 3101 19–34 year olds. Rows one and two give the percentages of black and white men and women aged 27 and 33 who had ever been married and show much lower marriage rates among blacks than among whites. Also entered in these two rows are the percentages married of the same age groups among Native Americans in Alaska provided by Berman and Leask (1994) showing lower rates of marriage than for blacks. Row 3 confirms this difference from an analysis by Shi (1999) of the Medical Expenditure Panel Survey of 1997–1998 of a representative sample of 14,811 aged 18. This survey provides data on marriage rates of whites, blacks, Hispanics and East Asians, and marriage rates for Native Americans provided by Berman and Leask (1994) are also given. Notice that East Asians have the highest marriage rate followed in descending order by whites, Hispanics, Native Americans and blacks. Row 4 presents data from the 1988 National Educational Longitudinal Study of approximately 25,000 14 year olds and shows that the percentages living with both parents showed the same racial and ethnic rank order, the highest percentage being among East Asians, followed again in descending order by whites, Hispanics, Native Americans and blacks.

Rows 5 and 6 present data for Britain from a study of a representative sample of 5196 adults and show marriage rates for the four major racial and ethnic groups of blacks, whites, East Asians (Chinese) and South Asians (Indian sub-Continent) for males and females. Notice that many fewer blacks are married than the other three groups and that more of both East Asians and South Asians are married than whites. Rows 7 and 8 give marriage rates for France for whites and blacks obtained from the French Labour Force Surveys of 1991, 1994 and 1997 and show that blacks are less likely to be married than whites.

While these data are consistent with the thesis that blacks have a lower propensity than whites to form monogamous love relationships, two alternative explanations need to be considered. The first is that blacks form these relationships to the same extent as whites but they co-habit rather than entering into formal marriage contracts. This theory fails to find support in either the United States or Britain. American data provided by Raley (1996) for women who have either married or co-habited by ages 27 and 33 are given in rows 9 and 10 and are lower among blacks than among whites. Rows 11 and 12 give British results from a survey for those who had either been married or were co-habiting at the ages of 24–28 and 35–39 and show lower rates among blacks than among whites and South Asians. A second explanation for the low marriage rates among blacks which has been proposed by Wilson (1987) is that there is a shortage of young black males making attractive marriage partners because of the numbers of them who are either in prison or long-term unemployed. This theory has been examined by Lichter, McLaughlin, Kephart, and

Table 10
Marriage and cohabitation (percentages)

No.	Location	Date	Age	Sex	Status	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	1968–1990	27	m/f	Married	47			39	78		Raley, 1996
2	USA	1988–1990	33	m/f	Married	59			50	87		Berman & Leask, 1994
3	USA	1990–1996	18–64	m/f	Married	35	66	55	48	61		Shi, 1999
4	USA	1988	Adult	m/f	Married	39	79	65	53	68		Peng & White, 1994
5	Britain	1991	30–34	m	Married	48	73			65	88	Berrington, 1996
6	Britain	1991	30–34	f	Married	39	81			72	88	Berrington, 1996
7	France	1994	37–38	m	Married	45				55		Model, Fisher, & Silberman, 1999
8	France	1994	37–38	f	Married	40				56		Model et al., 1999
9	USA	1989	27	m/f	Cohabited	70				84		Raley, 1996
10	USA	1989	33	m/f	Cohabited	80				94		Raley, 1996
11	Britain	1995	24–29	m/f	Cohabited	38				68	77	Modood & Berthoud, 1997
12	Britain	1995	35–39	m/f	Cohabited	69				93	97	Modood & Berthoud, 1997

Landry (1992), Raley (1996) and South and Lloyd (1992), all of whom have concluded that it could explain about one fifth of the low marriage rate among blacks. The remaining four fifths still requires explanation.

Low rates of stable monogamous unions are also present among blacks in the Caribbean islands. In a review of the literature Ram and Ebanks (1973) write that “In the Caribbean in general. . . there is a substantial amount of movement from one sex partner to another and also a very high percentage of reproduction outside marriage” (p. 143).

2.10. *Extramarital sex*

When they do marry, blacks are less tolerant than whites of the monogamous constraints imposed by the marriage contract. An extreme form of this intolerance is that blacks are more likely to kill their spouses than whites. Thus, in Detroit in 1982–1983 63 per cent of the population was black while 90.5 per cent of those who killed their spouses were black (Goetting, 1989). A less extreme expression of the relative intolerance of blacks of monogamy is that blacks are less likely than whites to be faithful to their spouses and are less likely to remain married. Some data illustrating these differences are shown in Table 11. Row one shows the results of an analysis of the Kinsey data of college graduates by Rushton (2000) in which 51 per cent of blacks were unfaithful to their spouses during the first two years of marriage compared with 23 per cent of whites. Rows 2 and 3 show the results of a study of a representative sample of 2172 individuals obtained in the American General Household Survey showing that in the case of both males and females the incidence of marital infidelity was about 50 per cent greater among blacks than among whites. Rows 4 and 5 show the results of an analysis of the National AIDS Behavioral Survey of 1686 married individuals who were asked if they have had extramarital sex in the last 12 months. The results show substantially greater extramarital sex among blacks and Hispanics than among whites. Rows 6 and 7 present the percentages of blacks and whites who had had extramarital sex in the last year and the last five years, found in an American national sample of 2058 18–70 year olds, and show rates of extramarital sex three to four times more prevalent among blacks than among whites.

In addition to these studies, Broman (1993) has analysed data of a representative sample of 2059 married Americans and found that blacks are less happy in marriage than whites: “blacks

Table 11
Extramarital sex (percentages)

No.	Location	Measure	Age	Year	Sex	Blacks	Hispanics	Whites	Reference
1	USA	First 2 years		1938–1963	m/f	51		23	Rushton, 2000
2	USA	Ever	18–75	1994	m	33		21	Wiederman, 1997
3	USA	Ever	18–75	1994	f	16		11	Wiederman, 1997
4	USA	Last year	18–75	1990	m	4	11	2	Choi, Catania, & Dolcini, 1994
5	USA	Last year	18–75	1990	f	4	5	1	Choi et al., 1994
6	USA	Last year	18–70	1990	m/f	13		3	Leigh, Temple, & Trocki, 1993
7	USA	Last 5 years			m/f	17		5	Leigh et al., 1993

are significantly less likely to feel that their marriages are harmonious and are significantly less likely to be satisfied with their marriages” (p. 726). In further confirmation of this difference, Moore and Schwebel (1993) have found that blacks cite infidelity more frequently than whites as a cause of divorce.

2.11. Multiple sexual partners

The racial and ethnic differences in the propensity to form long-term monogamous relationships are also expressed in the propensity to have multiple sexual partners. These differences have been shown in a number of studies summarized in Table 12. Row one gives data abstracted by Rushton (2000) from the Kinsey archive and shows that about twice as many black college graduates had had six or more partners before marriage than whites. Rows two and three give the percentages of male and female black, Hispanic and white 15–18 year olds who have had four or more sexual partners found in the American nationally representative Youth Risk Behavior Surveys of 1990 and 1995. The figures show substantially greater proportions of black males having had four or more partners than whites and somewhat greater proportions of black females, with Hispanics being broadly similar to whites. Rows 4 and 5 show similar data from the American nationally representative National Survey of Family Growth and National Survey of Adolescent Males. The data consist of the proportions of 15–19 year olds who have had two or more sexual partners and show substantially greater proportions of blacks. Row 6 gives data collected in a study of 2026 15–18 year olds in Los Angeles for those who had had five or more sexual partners and shows the highest percentage among blacks and the lowest percentage among East Asians. Rows 7 and 8 show data from an analysis of the 1992 National Health Interview Survey of 5223 14–22 year olds. The data are presented as odds ratios for males and females of having had sex with two or more partners during the last three months and show that blacks had approximately twice the probability of falling into this category as whites, with Hispanics intermediate. Rows 9 and 10 present data from the National Survey of Family Growth of approximately 20,000 women aged 18–44 and the General Social Survey of approximately 2000 men aged 15–44. The data consist of the percentages of those who had had two or more sexual partners during the preceding year and show that there were approximately twice as many blacks in this category as whites. Rows 11 and 12 give data obtained from a nationally representative sample of 4390 for the percentages of those who had had four or more sexual partners during the last four years and show about twice as many blacks falling into this category as whites. Rows 13 and 14 show the percentages of those who had had five or more sexual partners in the last year and in the last five years, obtained in an American sample of 2058. Rows 15 and 16 show data from a study of 3805 15–18 year olds and show that the percentage of black males who had had four or more sexual partners was more than double that of whites. Row 17 presents results from the 1988 Survey of Adolescent Males, a nationally representative study of 1251 youths aged 15–19. It gives the mean number of sexual partners and shows that blacks had more than twice as many of these as whites and Hispanics.

Rows 18 through 21 give data from Britain from a study of a nationally representative sample of approximately 20,000 16–59 year olds. Rows 18 and 19 give the male and female percentages of blacks, whites and South Asians who had had two or more sexual partners during the last 5 years and rows 20 and 21 give the male and female percentages who had had two or more sexual

Table 12
Multiple sexual partners

No.	Country	Measure	Statistic	Age	Year	Sex	E. Asians	Blacks	Hispanics	Whites	S. Asians	Reference
1	USA	6+	Percent		1938–1963	m/f		45		27		Rushton, 2000
2	USA	4+	Percent	15–18	1995	m		52	24	15		Warren, Santelli, Everett, & Kann, 1998
3	USA	4+	Percent			f		22	12	13		Warren et al., 1998
4	USA	2+	Percent	15–19	1995	m		63	49	39		Moore, Manlove, Glei, & Morrison, 1998
5	USA	2+	Percent			f		33	26	26		Moore et al., 1998
6	USA	5+	Percent	15–518	1992	m/f	8	38	21	26		Schuster, Bell, Nakajjima, & Kanouse, 1998
7	USA	2+ last	OR	14–22	1992	m		2.8	1.4	1.0		Santinelli, Brener, Lowry, & Zabin, 1998
8	USA	3 months	OR			f		1.4	1.1	1.0		Santinelli et al., 1998
9	USA	2+ last year	Percent	18–44	1988–1996	m		40		22		Finer, Darrich, & Singh, 1999
10	USA	2+ last year	Percent	15–44		f		21	10	10		Finer et al., 1999
11	USA	4+ last year	Percent	18–33	1988–1990	m		18		7		Seidman & Aral, 1992
12	USA	4+ last year	Percent	18–80	1988–1990	f		2		1		Seidman & Aral, 1992
13	USA	5+ last year	Percent	18–70	1990	m/f		3		1		Leigh et al., 1993
14	USA	5+ last 5 years	Percent	18–70	1990	m/f		16		9		Leigh et al., 1993
15	USA	4+	Percent	15–18	1993	m		57		25		Valois et al., 1999
16	USA	4+	Percent	15–18	1993	f		26		15		Valois et al., 1999
17	USA	Number		15–19	1988	m/f		11.3	5.8	5.2		Sonenstein, Pleck, & Ku, 1991
18	Britain	2+ last 5 years	Percent	16–60	1990	m		46		35	28	Johnson, Wadsworth, Wellings, & Field, 1994
19	Britain	2+ last 5 years	Percent	16–60	1990	f		28		23	8	Johnson et al., 1994
20	Britain	2+ last 2 years	Percent	16–60	1990	m		28		22	18	Johnson et al., 1994
21	Britain	2+ last 2 years	Percent		1990	f		13		12	6	Johnson et al., 1994

partners during the last 2 years. For all four comparisons blacks had more sexual partners and South Asians had fewer partners than whites.

2.12. *Delay of gratification*

The impulsiveness component of psychopathic personality includes an inability or unwillingness to delay immediate gratification for a long-term advantage. The first study to demonstrate differences between blacks and whites in the delay of gratification was carried out by Mischel (1961a, b) in Trinidad. He offered black and white children the choice between being given a small candy bar now or a larger one in a week's time. He found that black children were much more likely to ask for the small candy now. This difference has been confirmed in three subsequent studies. The first of these repeated the experiment on black and white 9 year olds in New York City (Seagull, 1966) and the second carried out the experiment on 15 year olds in Atlanta (Zytkoskee, Strickland, & Watson, 1971). Both studies obtained the same race difference. A further study by Price-Williams and Ramirez (1974) was carried out on 10 year olds in the southern United States and included Mexicans as well as blacks and whites. The choices were varied slightly and consisted of the option of \$10 dollars now or \$30 in a month's time, a 5 cents candy bar now or a 25 cents bar in a month's time, and a small present now or a larger one in a month's time. There was little difference between the black and Mexican children, both of whom preferred the immediate offer to the more distant one, as compared with whites. This race difference has been noted but given different descriptions by several writers. For instance, Banfield (1974, p. 54) writes of the "extreme present-orientation" of blacks and Levin (1997, p. 77) of their "high time preference", an economists' term for preferring cash now to a greater sum including accrued interest in the distant future.

2.13. *Work commitment*

We look next at the weak work commitment component of psychopathic personality or the "inability to sustain consistent work behavior", in the words of the *American Psychiatric Association's Diagnostic Manual*.

The results of a number of studies of racial and ethnic differences in work motivation are summarized in Table 13. Row one shows racial and ethnic differences in "perseverance" assessed by teachers in a sample of 1337 fourth graders; perseverance was defined as "sticks to tasks until finished; if one effort to do a job is unsuccessful, tries again; and tries hard at assignments, doesn't give up easily". The results show low persistence scores by blacks, high persistent scores by Asians and whites and Hispanics intermediate. Row 2 shows data for a work commitment questionnaire administered to a sample of 357 college students showing the highest work commitment among Asian students followed by Hispanics and whites, and the lowest work commitment among blacks. Row 3 shows data for the hours of homework done by different racial and ethnic groups calculated from the American National Educational Longitudinal Study data. Blacks, Native Americans and Hispanics do less homework than whites, while Asians do more. Row 4 shows the grade point averages (GPAs) of college students controlling for Scholastic Aptitude Test (SAT) scores. The figures presented are the residuals of the prediction equation for GPAs from SAT scores. The negative residuals of blacks and Hispanics indicate that these two groups

Table 13
Work commitment

No.	Country	Measure	Year	Sex	Statistic	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	Perseverance	1974	m/f	<i>d</i>	-0.53	0.38	0.01		0.00		Spring et al., 1977
2	USA	Work commit	1992	m/f	<i>d</i>	-0.27	0.16	0.01		0.00		Luzzo, 1994
3	USA	Homework	1988	m/f	<i>d</i>	-0.09	0.32	-0.11	-0.18	0.00		Peng & White, 1994
4	USA	College grades	1986	m/f	Residuals	-0.18	0.04	-0.16		0.04		Young, 1991
5	USA	College grades	1995	m/f	<i>d</i>	-0.53				0.00		Vars & Bowen, 1998
6	USA	College grades	1995	m/f	<i>d</i>	-0.33				0.00		Vars & Bowen, 1998
7	USA	Unemployed	1970	m	Percent	6.3	2.4	5.5	11.6	3.9		Sowell, 1978
8	USA	Out of lab force	1980	m	Percent	16.3			16.8	6.2		Snipp, 1991
9	USA	Out of lab force	1985-1987	m	Percent	14.0				5.2		Jencks, 1992
10	Britain	Unemployed	1991	m	Percent	26.2	11.3			11.0	20.4	Blackaby, Drinkwater, Leslie, & Murphy, 1997
11	Britain	Unemployed	1991	f	Percent	16.2	7.3			6.6	16.7	Blackaby et al., 1997
12	Canada	Unemployed	1991	m	Percent	12.9				7.4		Model et al., 1999
13	Canada	Unemployed	1991	f	Percent	11.3				7.5		Model et al., 1999
14	France	Unemployed	1994	m	Percent	11.2				8.4		Model et al., 1999
15	France	Unemployed	1994	f	Percent	14.5				12.8		Model et al., 1999

obtain poorer GPAs than would be predicted from their SAT scores, while the positive residuals of Asians and whites indicate that they obtain better GPAs than would be predicted from their SAT scores. Rows 5 and 6 show similar data from another data set and expressed as *ds* in relation to whites. Row 5 shows blacks obtain lower GPAs than whites, while row 6 shows that blacks still obtain lower GPAs than whites after controlling for SAT scores.

Several American ethnographic studies of the high rates of unemployment among blacks in inner cities have concluded that a major factor responsible for these is an unwillingness to work. Thus, Anderson (1980, p. 75) writes that “there are many unemployed black youth who are unmotivated and uninterested in working for a living, particularly in the dead-end jobs they are likely to get”. Petterson (1997, p. 605) writes in similar vein that “it is commonly contended that young black men experience more joblessness than their white counterparts because they are less willing to seek out low paying jobs”. American Asians are the opposite of blacks in this respect. They have low rates of unemployment and it has been shown by Flynn (1991) that they achieve higher educational qualifications and earnings than would be predicted from their intelligence, suggesting that they have strong work motivation. Row 7 presents data from the 1970 American census for unemployment rates for the five major racial and ethnic groups and shows the highest rate of unemployment among Native Americans followed in descending order by blacks, Hispanics, whites and East Asians, consisting solely of ethnic Chinese and Japanese. These differences in unemployment rates are frequently attributed to white racism but it is difficult to reconcile this explanation with the lower rate of unemployment among East Asians as compared with whites and also with the higher rate of unemployment among Native Americans as compared with blacks. Row 8 shows further evidence for racial and ethnic differences in work commitment expressed in the percentages of black, Native American and white men aged 25–54 “out of the labor force” for 1970. The category “out of the labor force” consists of healthy individuals who have not worked at all for the preceding year. Jencks (1992) contends that those who have not worked even for a week during the preceding year cannot be looking for work and should be regarded as choosing not to work. Notice that the percentages of blacks and Native Americans out of the labor force are approximately the same and about two and a half times greater than that of whites. Row 9 shows data presented by Jencks (1992) for blacks and whites out of the labor force for 1985–1987, again showing that about two and a half times as many blacks fall into this category as whites.

Rows 10 and 11 present unemployment data for Britain derived from the 1991 census and consist of the percentages of men and women who were unemployed for four racial and ethnic groups. The Asians are ethnic Chinese. Notice that unemployment is substantially higher among blacks and South Asians than among whites and Chinese. The authors of the study conclude that the high rate of unemployment among South Asians is partly due to the inability of many of them to speak English, but observe that this cannot explain the high rate of unemployment among blacks. Rows 12 and 13 present unemployment rates for blacks and whites in Canada and show that unemployment rates among blacks are about fifty percent higher than among whites. Rows 14 and 15 show unemployment rates for blacks and whites in France and again show that these are higher for blacks than for whites.

2.14. *Recklessness*

We examine now the phenomenon of “recklessness”. This is included in the APA’s list of the manifestations of anti-social personality disorder as “recklessness regarding one’s own or others’

personal safety”. A weaker form of recklessness is risk taking which has frequently been noted as a characteristic of psychopathic personality. Psychopaths appear to enjoy risk taking because it provides excitement. We begin this section by noting a result from the 1989–1993 American Teenage Attitudes and Practices Survey, a study of a nationally representative sample of 9135 youths aged 12–18 years. As part of this study the youths were asked to consider the question “I get a kick out of doing things every now and then that are a little risky or dangerous”. It was found that 56.9 per cent of blacks agreed with this statement, as compared with 38.6 per cent of whites (Flint, Yamada, & Novotny, 1998). It appears therefore that blacks enjoy risk taking more than whites.

Indices of risk taking and its more extreme expression as recklessness can be obtained from various forms of behavior associated with automobiles and from various forms of sexual behavior. A number of studies of recklessness in connection with automobiles are summarized in Table 14. Row 1 gives the results of a study of 5112 observations of red-light running in three cities in Virginia and shows that blacks run red light more than whites. Rows 2–6 show five studies on the non-use of seat belts, another form of recklessness. Row 2 shows results of a study carried out in the early 1980s in North Carolina in which observers recorded whether people were wearing seat belts while they were driving. More women than men were found to wear seat belts, consistent with many studies showing psychopathic personality is lower in females than in males (e.g. Dahlstrom et al., 1986), but more striking was the greater non-use of seat belts by blacks than by whites. Row 3 shows the results of a study of 1063 drivers in Harrisburg, Pennsylvania and excluded those whose automobiles had automatic seat belt devices. The results for blacks and Hispanics were combined by the author of the study into one group, the figure for which is assigned to both groups in the table and is about 25 per cent greater for blacks and Hispanics

Table 14
Recklessness — automobiles

No.	Location	Measure	Statistic	Sex	Blacks	E. Asians	Hispanics	N. Americans	Whites	Reference
1	USA	Red-light running	OR	m/f	1.19				1	Porter & England, 2000
2	USA	No seat belt	Percent	m/f	94				72	Hunter, Campbell, & Stewart, 1986
3	USA	No seat belt	Percent	m/f	33		33		25	Colon, 1992
4	USA	No seat belt	Percent	m/f	95		48		53	Niemcryk, Brawley, Kaufman, & Yount, 1997
5	USA	No seat belt	Percent	m/f				44		Blum, Harmon, Harris, Bergeissen, & Resnic, 1992
6	USA	No seat belt	Percent	m/f	High	Low			Interm.	Shi, 1999
7	USA	Vehicle injuries	OR	m/f	1.78				1	Bell, Amoroso, Yore, Smith, & Jones, 2000
8	USA	Vehicle injuries	OR	m/f				1.82	1	Sullivan & Grossman, 1999

than for whites. Row 4 gives data for Nevada consisting of all motor vehicle accidents causing serious injuries to children during 1989–1992; it reports the percentages of the injured children not wearing any kind of seat belt or safety harness and found this much higher among blacks than among whites and Hispanics. Row 5 gives data from the Adolescent Health Survey of 13,454 Native American 18 year olds for those who never or hardly ever used belts. Row 6 gives results from a study of 15–20 year olds in an American city for which the authors do not provide figures for seat belt usage but state that Asians used them significantly more than whites and that whites used them significantly more than blacks.

Recklessness in the driving of automobiles can also be assessed from accidents and injuries. Row 7 presents data from a study of 429 US army personnel who had suffered motor vehicle injuries requiring hospitalization in 1992. The authors of the study found that the main factors responsible for the injuries were heavy drinking, speeding and non-use of seat belts. Race differences in the rate of injuries were calculated in relation to total numbers among approximately 100,000 military personnel and showed that blacks sustained 78% more injuries than whites. Row 8 gives the results of a study of motor vehicle accidents requiring hospitalization among Native Americans in the state of Washington over the years 1990–1994 compared to all residents and shows an excess accident rate of 82%. The great majority of the population of Washington state are white and are entered as such in the table. In these studies blacks, Hispanics and Native Americans showed greater recklessness and risk taking than whites and East Asians.

Further expressions of recklessness can be obtained from a variety of sexual behaviours. We consider first the non-use of contraception by those who do not wish to have children. This can be regarded as reckless both because this is likely to result in an unwanted pregnancy and also because it incurs the risk of contracting sexually transmitted diseases including HIV and AIDS. A number of studies of racial and ethnic differences in the non-use of contraception are summarized in Table 15. Rows 1–10 give data for the percentages of different racial and ethnic groups who did not use contraception on the occasion of their first sexual intercourse. Rows 1 and 2 show the results of an analysis of an American national probability sample survey of 670 15–19-year-old young women and 936 17–21-year-old young men carried out in 1979. The data consist of the percentages of blacks and whites who did not use any type of contraception on the occasion of their first sexual intercourse and show greater use of contraception by whites than by blacks. Row 3 shows data for a national sample of 2042 15–24-year-old women who did not use any form of contraception on the occasion of their first sexual intercourse and shows greater non-use of contraception by blacks and Hispanics, as compared with whites. Rows 4 and 5 present data on the non-use of contraception for further American samples and rows 6 and 7 present data for a sample of 18-year-old male and female Native Americans drawn from the Adolescent Health Survey. Row 8 shows data for 1880 youths from the 1988 National Survey of Adolescent Males. Rows 9 and 10 give data from the 1982 and 1988 National Surveys of Family Growth based on 7969 and 8450 15–44-year-old women. These studies show that blacks, Hispanics and Native Americans are less likely than whites to use contraception on the occasion of their first sexual intercourse. Notice, however, that blacks, Hispanics and Native Americans tend to have their first sexual intercourse at younger ages than whites (Table 17), and are therefore less mature and less likely to use contraception for this reason.

Rows 11 through 15 show the results of American studies on the inconsistent or non-use of contraception on occasions other than first sexual intercourse. Row 11 shows data from an

American national probability survey of 2058 18–70 year olds and gives the percentages of blacks and whites who had had more than one sexual partner in the previous year and who never used condoms or who used them inconsistently. Row 12 shows the results from the 1995 National Study of Family Growth of 18 year old females who did not use contraception during their last sexual intercourse. Rows 13 and 14 show data from a survey of 1229 sexually active unmarried men and women in a district of San Francisco with a high rate of sexually transmitted diseases who seldom or never used condoms. Row 15 shows the results from the National Survey of Family Growth for 1485 women who took the contraceptive pill but had not taken it consistently during the preceding three months.

Rows 16 and 17 present similar data from Britain from a 1994 survey of approximately 20,000 16–59 year olds and give the percentages of males and females who had practised “unsafe sex” during the last year, defined as sexual relations without the use of contraception by those not wishing to achieve a pregnancy. These British results confirm those from the United States in showing greater non-use of contraception among blacks than by whites.

Table 15
Recklessness — non-use of contraception (percentages)

No.	Location	Measure	Sex	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	First sex	f	59				49		Zelnick & Shah, 1983
2	USA	First sex	m	66		33		54		Zelnick & Shah, 1983
3	USA	First sex	f	37		54		24		Abma, Driscoll, & Moore, 1998
4	USA	First sex	f	21		26		15		Peterson, Oakley, Potter, & Darroch, 1998
5	USA	First sex	m/f	64		67		42		Schuster et al., 1998
6	USA	First sex	m				60			Blum et al., 1992
7	USA	First sex	f				50			Blum et al., 1992
8	USA	First sex	m	51		43		34		Sonenstein, Pleck, & Ku, 1989
9	USA	First sex	f	64		77		45		Forrest & Singh, 1990
10	USA	First sex	f	46		46		31		Forrest & Singh, 1990
11	USA	Last year	m/f	27				15		Leigh et al., 1993
12	USA	Last sex	f	28		37		10		Darroch, Landry, & Oslak, 1999
13	USA	Ever	m	45		50		43		Catania, 1992
14	USA	Ever	f	68		72		49		Catania, 1992
15	USA	Inconsistent	f	21		26		15		Peterson et al., 1998
16	Britain	Last year	m	10				6	4	Johnson et al., 1994
17	Britain	Last year	f	5				4	2	Johnson et al., 1994

Failure to use contraception by those not wishing to become pregnant results in unwanted and unplanned pregnancies and births. Hence the prevalence of these provides a further index of recklessness in sexual behavior. Virtually all teenage pregnancies can be regarded as resulting from recklessness in having unprotected sex because hardly any teenagers have babies intentionally (Kalmuss, 1992). Results of several studies of teenage births are given in Table 16. Row 1 shows data for the United States for 1990 for the percentages of girls aged 10–14 who had babies and shows that this was 10 times greater among blacks than among whites and four times greater among Hispanics, as compared with whites. Row 2 presents the percentages of 10–14-year-old

Table 16
Recklessness — unplanned pregnancies and births (percentages)

No.	Location	Measure	Year	Sex	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference	
1	USA	Births, 10–14 year-olds	1990	f	0.50				0.20	0.05	Guttmacher, 1994	
2	USA	Births, 10–14 year-olds	1993–1995	f	0.30				0.26	0.03	Taylor, Chavez, Adams, Chabra, & Shah, 1999	
3	USA	Births, 15–23 year-olds	1990	f	8.4				6.5	2.3	Guttmacher, 1994	
4	USA	Births, 15–19 year-olds	1985	f	8.5	2.5	7.5			3.5	Burke, 1997	
5	USA	Births, 10–18 year-olds	1992	f	16.2	2.6	10.1	8.4		5.2	Moore et al., 1998	
6	USA	Teenage pregnancy	1992	f	27		34	31		19	Kenney, Reinholtz, & Angelini, 1997	
7	USA	Unplanned pregnancy	1994	f	72	49				43	Henshaw, 1998	
8	USA	Unplanned births	1994	f	51		30			27	Henshaw, 1998	
9	Britain	Births, 10–19 year-olds	1994	f	21					6	6	Modood & Berthoud, 1997
10	USA	Teenage fathers	1982	m	14		7			5		Marsiglio, 1987
11	USA	Pleased fathers	1982	m	9		4			4		Marsiglio, 1987
12	USA	Didn't care fathers	1987	m	11.1					5.6		Moore & Stief, 1991
13	USA	Didn't think fathers	1987	m	16.5					9.2		Moore & Stief, 1991

girls who gave birth in California in 1993–1995 and shows somewhat similar results with blacks having babies 10 times more frequently and Hispanics about nine times more frequently than whites. Row 3 shows the percentages of 15–17-year-old girls having babies for 1990 and again shows that this was considerably higher for blacks than for whites, with Hispanics intermediate. Row 4 presents the teenage birth rates in California in 1985 and shows the highest rate among blacks followed in descending order by Hispanics, whites and East Asians. Row 5 presents data for 1992 from a national sample of 18-year-old young women and shows that the percentages who had had a child were more than three times greater among blacks and about twice as great among Hispanics, as compared with whites, about 50 per cent greater among Native Americans and about half as great among East Asians. Row 6 presents data for 1937 young women aged 18–22 from a southwestern American state and reports the percentages who had had a teenage pregnancy, showing that this was substantially higher among blacks, Hispanics and Native Americans than among whites. Rows 7 and 8 show 1994 data for the numbers of women aged 15–44 who had at least one unplanned pregnancy and at least one unplanned birth and shows that both of these were greatest among blacks and lowest among whites, with Hispanics intermediate. Row 9 shows the results of a survey of teenage births carried out in 1994 in Britain and shows that these were three and a half times more prevalent among blacks than among whites and South Asians.

Unplanned pregnancies and births are also caused by reckless behaviour by men. Some studies of men's contribution to unplanned pregnancies and births are summarized in rows 10–13 of Table 16. Row 10 shows data for teenage males obtained from a nationally representative sample of 12,686 respondents in the American National Survey of Adolescent Males; it shows that the percentage of teenage blacks who had fathered an illegitimate child was approximately three times greater than that of whites, with Hispanics intermediate. Row 11 presents data for adolescent males in the same survey who were asked if they would feel "very pleased" if they were responsible for an unplanned pregnancy. To be very pleased about producing an unplanned pregnancy in a teenage girl can be regarded as an index of a reckless attitude towards the well being of others. The results show that the percentage of teenage blacks who had fathered a child and who would be "very pleased" to produce a pregnancy was more than double the percentages of Hispanics and whites. Row 12 and 13 present data for 934 youths from the 1987 National Survey of Children who were asked how they felt about their partners becoming pregnant when they first had sex with them. Row 12 gives the percentages of those who "didn't care" and shows about twice as many of these among blacks as among whites. Row 13 gives the percentages of those who "didn't think" and shows the percentage of these about 80 per cent higher among blacks than among whites. These data presented in Table 16 provide further evidence for greater recklessness expressed in unplanned pregnancies and births among young women, and in the attitudes towards these of young men, among blacks, Native Americans and Hispanics, as compared with whites, and lower recklessness among East Asians, as compared with whites.

2.15. Sexual precocity

We now examine sexual precocity as one of the expressions of conduct disorder in young adolescents. A number of studies providing data on sexual precocity are summarized in Table 17. Row one gives Rushton's (1995) analysis of the Kinsey archive for the percentages of black and

Table 17
Precocious sexuality (percentages)

No.	Location	Year	Age	Sex	Blacks	E. Asians	Hispanics	N. Americans	Whites	S. Asians	Reference
1	USA	1938–1963	17	m/f	51				21		Rushton, 2000
2	USA	1991	13	m	49				18		Coker, Richter, & Valois, 1994
3	USA	1991	13	f	12				5		Coker et al., 1994
4	USA	1992	13	m/f	33	4	15		14		Schuster et al., 1998
5	USA	1971	15	f	31				11		Zelnik & Kantner, 1980
6	USA	1976	15	f	39				14		Hofferth, Kahn, & Baldwin, 1987
7	USA	1979	15	f	42				18		Hofferth et al., 1987
8	USA	1979	15	m	65				32		Zelnik & Shah, 1983
9	USA	1979	15	f	37				19		Zelnik & Shah, 1983
10	USA	1979	15	m	45				14		Sonenstein et al., 1991
11	USA	1982	15	f	25				15		Hofferth & Hayes, 1987
12	USA	1983	15	m	42		19		12		Hofferth & Hayes, 1987
13	USA	1983	15	f	10		4		5		Hofferth & Hayes, 1987
14	USA	1988	15	m	69		32		26		Sonenstein et al., 1989
15	USA	1988	15	m	49				21		Sonenstein et al., 1991
16	USA	1989	15	m	46		38		29		Gruber et al., 1996
17	USA	1989	15	f	33		29		22		Gruber et al., 1996
18	USA	1990	15	m				22			Blum et al., 1992
19	USA	1990	15	f				15			Blum et al., 1992
20	USA	1991	15	m/f	2.0	0.3	1.6		1.0		Boyer, Tschann, & Shafer, 1999
21	Britain	1990	16	m	26				19	11	Johnson et al., 1994
22	Britain	1990	16	f	10				8	1	Johnson et al., 1994

white college students and graduates who had had sexual intercourse before the age of 17 and shows more than double the proportion among blacks. These data were collected over the years 1938–1963. More recent studies have confirmed and extended this difference by showing greater proportions of blacks than whites with precocious sexual experience and providing information for other racial and ethnic groups. Rows 2 and 3 give data derived from a sample of 5478 adolescents in the Youth Behavioral Risk Survey obtained in South Carolina; they give the percentages of boys and girls who had had sexual intercourse before the age of 13 and show that this was about two and a half times more frequent among blacks than among whites. Row 4 presents the results of a survey of 2026 adolescents in Los Angeles who were sexually experienced by the age of 13; it confirms that the proportion of blacks was about two and a half times greater than that of whites; it shows also that the proportion of Hispanics was about the same as that of whites while the proportion of East Asians was only about a third of that of whites.

Rows 5–20 show data from American studies showing the percentages of those who had had sexual intercourse by the age of 15. The general pattern is that the percentage of those with sexual experience is two to three times greater among blacks than among whites. Hispanics are typically intermediate between blacks and whites while East Asians are less experienced than whites. The data for Native Americans are limited to one study indicating the prevalence of sexual precocity is about the same as that of whites. Rows 21 and 22 provide data for Britain for the percentages of those with sexual experience before the age of sixteen and show that this is greater among blacks and lower among South Asians than among whites.

It should be noted that the race differences in sexual precocity may be explicable in terms of differences in sexual maturation documented by Rushton (2000). Nevertheless, these differences are predictable from the theory of racial and ethnic differences in psychopathic personality, their existence substantiates the theory and their absence would disconfirm the theory in accordance with Popper's principle of falsification.

2.16. Irresponsible parenting

We consider finally the psychopathic characteristic described by the American Psychiatric Association as “inability of function as a responsible parent”. Data for racial and ethnic differences in this characteristic are summarized in Table 18. One of the most straightforward measures of irresponsible parenting is the prevalence of child abuse and neglect. The American Association for Protecting Children collects information on children who have suffered child abuse and neglect. This has been summarized by Hampton, Gelles, and Harrop (1989) who report that in the 1980 census black children constituted approximately 15 per cent of the child population, while from 1976 to 1980 approximately 19 per cent of children suffering child abuse and neglect were black. For 1982, 1984 and 1985, the figures were 22.0, 20.8 and 26.8 per cent, respectively. Thus, black children are about 50 per cent over-represented in these figures. Hampton et al. (1989) have examined this question further by an analysis of the American First (1975) and Second (1985) National Family Violence Surveys. In these surveys severe violence towards children is defined as hitting them with the fist or with some object, and kicking, biting and beating them up. It does not include what is designated “minor violence” consisting of slapping or spanking. The percentages of black and white children subjected to severe violence in the two surveys combined are shown in the first row of Table 18. It will be seen that almost twice as many black children are

Table 18
Irresponsible parenthood

No.	Measure	Date	Statistic	Blacks	E. Asians	Hispanics	N. Americans	Whites	Reference
1	Child abuse	1975–1985	Percent	2.1				1.2	Hampton et al., 1989
2	Child abuse/neglect	1975–1977	Percent	0.39		0.32		0.28	Lauderdale, Valiunas, & Anderson, 1980
3	Child neglect	1988	OR	1.8		1.6		1	American Association for Protecting Children, 1988
4	Maltreatment	1996	OR	3.1		1.5		1	US Department of Health, 1996
5	Children adopted	1965–1972	Percent	19				2	Bachrach, Stolley, & London, 1992
6	Children fostered	1960–1975	Percent				25	0.05	Westermayer, 1977
7	Infant homicide	1983–1991	Per 10,000	1.98	0.38		2.03	0.56	Overpeck, Brenner, Trumble, Trifeletti, & Berendes, 1998
8	Infant homicide	1991–1992	Per 10,000	2.5		0.6		0.7	Finkelhor, 1997
9	Child homicide	1991–1992	Per 10,000	0.9		0.2		0.2	Finkelhor, 1997

subjected to severe violence as white. Row 2 presents the results of a study of child abuse and neglect in Texas over the years 1975–1977. All the 36,945 cases validated by the Department of Human Resources were analysed by racial and ethnic group. The incidence was calculated in relation to the numbers of blacks, whites and Hispanics in the population and shows the rates of child abuse and neglect were about 40 per cent greater among blacks than among whites, and about 14 per cent greater among Hispanics than among whites.

Row 3 presents data for the percentages of neglected children in the United States for 1988 expressed as odds ratios and shows that the prevalence of child neglect was 60 per cent greater among Hispanics and 80 per cent greater among blacks, as compared with whites. Row 4 presents the percentages of child maltreatment published by the United States Department of Health and Human Services and shows maltreatment about three times greater among blacks and about one and a half times greater among Hispanics, as compared with whites.

A further index of irresponsible parenthood consists of the numbers of children given up by their mothers for adoption. Row 5 presents data from the National Survey of Family Growth and shows that black single mothers gave their babies up for adoption about 10 times more than whites. In some cases children are taken away from their parents because of neglect or abuse and put into foster homes or placed out for adoption. Row 6 shows that 25 per cent of Native American children were fostered or adopted in the state of Minnesota in the 1960s and 1970s compared with 0.5 per cent of whites.

The most extreme expression of the inability to function as a responsible parent consists of killing a child. Racial differences in the homicide of infants in their first year of life are shown in row 7. The authors of this study examined the histories of approximately 35 million babies born in the United States between 1983 and 1991. They found that 2776 of these had been murdered. They were not able to obtain information on the perpetrators of these homicides but they cite studies showing that the great majority of the infant homicides are carried out either by the mothers or the mothers' husbands or partners. They calculated the rate of infant homicides for blacks, East Asians, Native Americans and whites, with the results shown in the table. It will be seen that the infant homicide rate of blacks and Native Americans is approaching four times as great as that of whites, while the rate among East Asians is about two thirds the white rate. Row 8 gives similar data for 1991–1992 for the murder of infants in their first year of life calculated from Uniform Crime Reports and shows a black rate of infant homicide about three and a half times greater than that of whites and Hispanics. Row 9 extends this analysis to infants aged between 1 and 2 years and shows that for this age group the homicide rate has fallen but that blacks kill their infant children at about four and a half times the rate of whites and Hispanics.

2.17. *Conclusions*

The general patterns of the racial and ethnic differences in the 16 measures and expressions of psychopathic personality for which data have been presented show a considerable degree of consistency. Blacks and Native Americans almost invariably show higher levels of psychopathic personality than whites. East Asians, principally Chinese and Japanese, almost invariably show lower levels of psychopathic personality than whites. South Asians from the Indian sub-Continent who are resident in Britain, Canada and South Africa typically show about the same levels of psychopathic personality as whites. Hispanics typically appear intermediate between high scoring blacks and Native Americans and lower scoring whites.

3. **The Bell Curve**

We noted in the introduction that Herrnstein and Murray raised the problem that while differences in intelligence can explain some portion of racial and ethnic differences in a number of important social phenomena including crime, unemployment, poverty, illegitimacy, welfare dependence, rates of marriage and low birth weight babies, differences in intelligence cannot explain the totality of these differences. They showed that when blacks, Hispanics and whites are matched for intelligence and age, the differences in these social phenomena were reduced but they were not entirely removed. Herrnstein and Murray's analysis of this problem is summarized in Table 19. This sets out for a number of these social phenomena the percentages of blacks, Hispanics and whites showing the characteristic, followed by the percentages of the three groups showing the characteristic when they are matched for the same age of 29 and the same IQ of 100. It will be seen that for all of the phenomena matching the racial and ethnic groups for age and IQ reduces the disparities to various degrees but in no case is the disparity eliminated. One of the objectives of this paper has been to propose that an additional factor that Herrnstein and Murray were looking for to explain the residual disparities consists of the racial and ethnic differences in

Table 19
Racial and ethnic differences before and after controlling for age and IQ (percentages)

Measure	Blacks	Hispanics	Whites
Crime — differences	13	6	2
Matched for IQ	5	3	2
Marriage — differences	54	76	78
Matched for IQ	58	75	79
Unemployment — differences	21	14	10
Matched for IQ	15	11	11
Illegitimacy — differences	21	14	10
Matched for IQ	15	11	11
Poverty — differences	26	18	7
Matched for IQ	9	11	6
Welfare — differences	49	30	13
Matched for IQ	30	15	12
Low birth weight babies — differences	10	5	3
Matched for IQ	6	5	3

psychopathic personality that have been documented in the first part of this paper. The first three of the phenomena set out in Table 19, consisting of rates of crime, marriage and unemployment, have already been considered as expressions of psychopathic personality. We see from the data set out in the table that when blacks and Hispanics are matched with whites for age and IQ, differences in crime rates are considerably reduced but remain substantial with black rates still 250 per cent greater than white and Hispanic rates 150 per cent greater than white. For rates of marriage, matching for age and IQ makes very little difference to the differences between blacks, Hispanics and whites. We can conclude that differences in marriage rates are almost entirely a function of differences in psychopathic personality. For male unemployment, matching for age and IQ reduces the differences between blacks and whites substantially but blacks still have unemployment rates 36 per cent greater than whites. With regard to Hispanics, however, matching for age and IQ eliminates the difference from whites.

The remaining four variables in Table 19 can be regarded as secondary effects of group differences in psychopathic personality. For women's illegitimacy rates, we see that matching blacks to whites for age and IQ reduces illegitimacy rates only a little and that the illegitimacy rate of blacks remains approximately five times greater than that of whites. With regard to Hispanics, matching with whites produces a greater reduction in illegitimacy rates but they remain substantially greater than those of whites. These residual racial and ethnic differences in women's illegitimacy rates can be interpreted as partly determined by secondary effects of differences in psychopathic personality, which contributes to an early onset of sexual activity and the non-use of contraception, which in turn contribute to determine illegitimacy rates.

With regard to women on welfare, we see that matching for age and IQ reduces the black–white difference by 50 per cent and the Hispanic–white difference by 84 per cent. The residual

differences can be interpreted as partly determined by differences in psychopathic personality producing higher rates of illegitimate children and single motherhood among blacks and Hispanics, which is a major factor responsible for becoming dependent on welfare.

With regard to poverty, we see that matching for age and IQ reduces the black–white difference by 77 per cent and the Hispanic–white difference by 74 per cent. Nevertheless the poverty rate of blacks remains 50 per cent above that of whites and that of Hispanics a little greater. Poverty rates are to some degree determined by differences in unemployment, participation in the labour force and numbers of illegitimate children, which are themselves partially determined by differences in psychopathic personality.

The final variable in Table 19 consists of low birth weight babies defined as those weighing less than 5.5 pounds at birth. We see that matching for age and IQ reduces the black–white disparity by a little more than half but has no effect on the Hispanic–white disparity. After this matching, blacks continue to have twice as many low birth weight babies as whites while Hispanics have two thirds more. These residual differences are likely to be due, to some degree, to black and Hispanic women behaving less responsibly during pregnancy by poor nutrition, alcohol and drug abuse and can be interpreted as secondary effects of group differences in psychopathic personality.

If we look at the general pattern of the data set out in Table 19, we note that after matching for age and IQ, Hispanics fall between whites and blacks for all the phenomena except for poverty. This general pattern is consistent with the racial and ethnic differences in psychopathic personality for which we have seen Hispanics generally fall between whites and blacks. This strengthens the case that the residual group differences in these phenomena are understandable in terms of differences in psychopathic personality. The exception of the greater rate of poverty for Hispanics than for blacks is probably largely due to their greater average numbers of children.

It is useful to note that there is no correlation between psychopathic personality and intelligence (Dahlstrom et al., 1986, p. 243). This means that psychopathic personality and intelligence can be regarded as independent determinants of the social phenomena set out in Table 19. We consider finally whether the magnitude of the racial and ethnic differences in psychopathic personality are sufficiently large to make a significant contribution to the differences in crime, welfare dependency, illegitimacy and so forth. The data set out in Table 1 indicate that blacks and Native Americans exceed whites on psychopathic personality as a personality trait by about somewhere between one third and one half a standard deviation and Hispanics by around a third of a standard deviation, while East Asians fall below whites by around one third of a standard deviation. Differences of these magnitudes will produce substantial differences of several hundred per cent in the proportions found at the end of the distribution and would be sufficient to make a significant contribution to the racial and ethnic differences in social behaviors discussed by Herrnstein and Murray.

4. Relation of the present theory to Rushton's r-K theory of race differences

We turn now to the relation between the present theory and Rushton's (2000) r-K theory of racial differences. Rushton's theory proposes that there is a Mongoloid–Caucasoid–Negroid gradient of r-K reproductive strategies such that Mongoloids are more K and devote resources to producing small numbers of children, investing heavily in them and providing them with a high

level of parental care; Negroids are more *r* and devote resources to producing greater numbers of children, investing less heavily in them and giving them less parental care; and Caucasoids are intermediate between the two other races although closer to Mongoloids. The distinction between *r* and *K* reproductive strategies is drawn from biology and Rushton has applied it to human race differences to explain a wide spectrum of characteristics differentiating the three races including intelligence, brain size, rates of physical maturation, dizygotic twinning, crime, sexual potency, sexual precocity, numbers of sexual partners and hormone levels.

The present theory should be regarded as an elaboration of Rushton's theory in which it is proposed that racial and ethnic differences in *r-K* strategies are further manifested in differences in psychopathic personality. The present theory extends Rushton's theory in three ways. First, by providing a mechanism by which the racial and ethnic differences in *r-K* strategies are mediated through differences in psychopathic personality, which can be regarded as an intervening variable between the strategies and a number of behaviours. Second, incorporating psychopathic personality into the *r-K* model makes it possible to predict racial and ethnic differences in a number of further behaviours not hitherto handled by the theory, including differences in conduct disorder, attention deficit hyperactivity disorder, moral values, delay of gratification, work commitment, unemployment, recklessness, marriage, welfare dependency, poverty, illegitimacy and low birth weight babies. Thus, entering psychopathic personality into the model increases considerably the explanatory power of the theory.

Third, Rushton's theory has been confined to the three major races of the Mongoloids, Caucasoids and Negroids. The present theory extends the analysis to Hispanics and Native Americans. With regard to Hispanics, we have noted that on the Psychopathic Deviate scale of the MMPI and on the majority of the 16 expressions and manifestations of psychopathic personality Hispanics fall intermediate between Native Americans and whites. This is readily understandable because most Hispanics are a hybrid population of Mestizos of mixed Native American and white ancestry. The majority of Hispanics in the United States come from Mexico, whose population consists of 9 per cent Europeans, 60 per cent Mestizos and 30 per cent Native Americans (Philips, 1996). We should therefore expect that they would occupy an intermediate position between the two parent races. With regard to Native Americans, we have seen that in general they score about the same as American blacks on the various measures and manifestations of psychopathic personality. The theory predicts that they should likewise score about the same as American blacks on other *r-K* characteristics such as rates of physical maturation, DZ twinning, brain size and the like. There is a useful job to be done assembling the research evidence to ascertain whether this is the case. We should note also that Native Americans have high rates of alcoholism which contributes to their high incidence of a number of psychopathic behaviours (Segal, 1998).

The *r-K* theory assumes that the race differences in *r-K* strategies and the behaviours these explain have a genetic basis. The proposed incorporation of psychopathic personality into the *r-K* model likewise assumes a genetic basis for race differences in psychopathic personality. A large number of studies have shown that psychopathic personality is significantly genetically determined. Mason and Frick (1994) summarize eight studies of the similarity for psychopathic personality of identical and same sex fraternal twins, in all of which identicals showed greater similarity than fraternal, and which taken together yield a heritability of 0.41. Three further twin studies of psychopathic personality summarized by Nigg and Goldsmith (1994) produce a heritability

of 0.56. Silberg et al. (1996) estimate the broad heritability of hyperactivity-conduct disorder at 0.88. Reviews of the heritability of crime by Eysenck and Gudjonsson (1989), Lykken (1995) and Raine (1993) all put the heritability of crime at about 0.5 or a little higher. While these heritability studies do not establish beyond dispute that the race differences in psychopathic personality have a genetic basis they strengthen the case that this is so. This case is further strengthened by the presence of consistent race differences in a variety of geographical locations. While most of the data on racial and ethnic differences in psychopathic personality summarized in Tables 1–16 are derived from Continental United States, the same differences are found in Hawaii, Britain, South Africa, Hong Kong, Japan, Nigeria, Mauritius and various Caribbean islands. It would be difficult to construct an environmentalist explanation for the presence of this pattern in so many locations. In addition, Whitney (1996) has reported that in the Weinberg and Scarr transracial adoption study in which black infants were adopted and reared by middle class white parents, the black adoptees at the age of 17 had significantly higher than normal MMPI Psychopathic Deviate scores. This shows that even when blacks are reared in a white middle class environment they continue to show high psychopathic personality. This result provides further confirmation for a genetic basis for race differences in psychopathic personality.

We turn finally to the evolutionary processes responsible for the racial and ethnic differences in psychopathic personality. We note first that for the three major races the rank order on psychopathic personality is the reverse of that for intelligence. The Mongoloids have the highest intelligence and the lowest psychopathic personality, the Negroids have the lowest intelligence and the highest psychopathic personality, and the Caucasoids are intermediate. I have reviewed the evidence for these differences in intelligence in Lynn (1997). Some years ago I proposed that these racial differences arose through the selection pressures on the Caucasoids and even more strongly on the Mongoloids of surviving through the cold winters of Eurasia, which required the development of enhanced intelligence to handle the problems of hunting large animals, making improved artefacts, building fires, constructing shelters, making clothing and the like (Lynn, 1991). This theory has now become widely accepted by scholars concerned with this problem including Chiarelli (1995), Jensen (1998), Levin (1997) Miller (1994, 1995) and Rushton (1995). Miller (1994) has elaborated this theory by postulating that the reliance of Caucasoids and Mongoloids on meat foods required the provisioning of females and children by males and hence stronger male–female bonding. This proposal has been incorporated by Rushton (2000) into his r-K theory. We can envisage that the same selection pressure would have acted to reduce psychopathic personality in Caucasoids and especially in Mongoloids. The problems of survival over cold winters would have required stronger bonding between males and females with greater and longer term commitment by males to provision their female mates and children, more responsible and concerned parenting, an enhanced capacity to delay gratification by collecting and storing food for future consumption, a greater sense of the importance of maintaining harmonious and co-operative relations within the group, and the development of stronger control over aggression towards other group members, promiscuous sexuality and other forms of anti-social behaviour. All of the components of psychopathic personality would have been disadvantageous for survival during the cold winters of Eurasia. There would have been selection pressure against them, producing the reduction in psychopathic personality in Caucasoids and the even greater reduction in Mongoloids documented in this paper.

References

- Abma, J., Driscoll, A., & Moore, K. (1998). Women's degree of control over first sexual intercourse. *Family Planning Perspectives, 30*, 12–18.
- Achenbach, T. M. (1992). *Manual for the child behavior checklist*. Burlington, VT: University of Vermont.
- Amar, A. R. (1998). Three cheers and two quibbles for Professor Kennedy. *Harvard Law Review, 111*, 1256–1269.
- American Association for Protecting Children (1988). *Highlights of official child neglect and abuse reporting*. Denver, CO: American Humane Association.
- American Psychiatric Association (1994). *Diagnostic and statistical manual of mental disorders*. Washington, DC: American Psychiatric Association.
- Anderson, E. (1980). Some observations on black youth unemployment. In B. E. Anderson & I. V. Sawhill, *Youth employment and public policy*. Englewood Cliffs, NJ: Prentice-Hall.
- Archer, R. P. (1997). *The MMPI-A: assessing adolescent psychopathology*. Mahwah, NJ: Lawrence Erlbaum.
- Bachman, R. (1992). *Death and violence on the reservation: homicide, family violence and suicide in American Indian populations*. Westport, CT: Auburn House.
- Bachrach, C. A., Stolley, K. S., & London, K. A. (1992). Relinquishment of premarital births. *Family Planning Perspectives, 24*, 27–32.
- Backman, J. G. (1970). *Youth in transition*. Ann Arbor, MI: Institute for Social Research.
- Banfield, E. (1974). *The unheavenly city revisited*. Boston: Little, Brown.
- Barkley, R. A. (1997). Behavioral inhibition, sustained attention, and executive functions: constructing a unifying theory of ADHD. *Psychological Bulletin, 121*, 65–94.
- Bell, N. S., Amoroso, P. J., Yore, M. M., Smith, G. S., & Jones, B. H. (2000). Self-reported risk-taking behaviors and hospitalization for motor vehicle injury among active duty personnel. *American Journal of Preventative Medicine, 18*, 85–95.
- Berman, M., & Leask, L. (1994). Violent death in Alaska: who is most likely to die? *Alaska Review of Economic and Social Conditions, 29*, 1–12.
- Bernstein, D. P., Cohen, P., Skodal, A., Bezirgianian, M. D., & Brook, J. S. (1996). Childhood antecedents of adolescent personality disorder. *American Journal of Psychiatry, 153*, 907–913.
- Berrington, A. (1996). Marriage patterns and inter-ethnic unions. In D. Coleman & D. Salt, *Ethnicity in the 1991 Census*. London: HMSO.
- Bickel, F., & Qualls, R. (1980). The impact of school climate on suspension rates in the Jefferson county public schools. *The Urban Review, 12*, 79–86.
- Blackaby, D., Drinkwater, S., Leslie, D., & Murphy, P. (1997). A picture of male and female unemployment among Britain's ethnic minorities. *Scottish Journal of Political Economy, 44*, 182–197.
- Blum, R. W., Harmon, B., Harris, L., Bergeissen, L., & Resnic, M. D. (1992). American Indian-Alaskan youth health. *Journal of the American Medical Association, 267*, 1637–1644.
- Boyer, C. B., Tschann, J. M., & Shafer, M. A. (1999). Predictors of risk for sexually transmitted diseases in ninth grade urban high school students. *Journal of Adolescent Research, 14*, 448–465.
- Broman, C. L. (1993). Race differences in marital well-being. *Journal of Marriage and the Family, 55*, 724–732.
- Burke, B. M. (1997). Trends and compositional changes in fertility: California circa 1970–1990. *Population and Environment, 19*, 15–51.
- Catania, J. A. (1992). Condom use in multi-ethnic neighborhoods of San Francisco. *American Journal of Public Health, 81*, 284–288.
- Cazenaze, N. A., & Straus, M. (1979). Race, class, network embeddedness and family violence: a search for potent support systems. *Journal of Comparative Family Studies, 10*, 281–300.
- Chang, L., Morrissy, R. F., & Koplewicz, H. S. (1995). Prevalence of psychiatric symptoms and their relation to adjustment among Chinese-American youth. *Journal of the Academy of Child and Adolescent Psychiatry, 34*, 91–99.
- Chiarelli, B. (1995). *Man between past and future*. Washington, DC: Institute for the Study of Man.
- Children's Defence Fund (1985). *Black and white children in America*. Washington, DC: Author.
- Choi, K.-H., Catania, J. A., & Dolcini, M. M. (1994). Extramarital sex and HIV risk behavior among US adults: results from the National AIDS Behavioral Survey. *American Journal of Public Health, 84*, 2003–2007.

- Cleckley, H. (1941). *The mask of sanity*. St. Louis: Mosby.
- Coker, A. L., Richter, D. L., & Valois, R. F. (1994). Correlates and consequences of early initiation into sexual intercourse. *Journal of School Health*, 64, 372–377.
- Colon, I. (1992). Race, belief in destiny and seat belt usage: a pilot study. *American Journal of Public Health*, 82, 875–877.
- Conners, C. K. (1989). *Conners' rating scales manual*. Tonawanda, NY: Multi-Health Systems.
- Correctional Service of Canada (1990). A mental health profile of federally sentenced offenders. *Forum on Corrections Research*, 2, 7–8.
- Costenbader, V. K., & Markson, S. (1994). School suspension: a survey of current policies and practices. *NASSP Bulletin*, October, 103–107.
- Dahlstrom, W. G., Lachar, D., & Dahlstrom, L. E. (1986). *MMPI patterns of American minorities*. Minneapolis, MN: University of Minneapolis Press.
- Darroch, J. E., Landry, D. J., & Oslak, S. (1999). Age differences between sexual partners. *Family Planning Perspectives*, 31, 160–167.
- Dion, R., Gotowiec, A., & Beiser, M. (1998). Depression and conduct disorder in native and non-native children. *Journal of the American Academy of Child and Adolescent Psychiatry*, 7, 736–742.
- DuPaul, G. J., Power, T. J., Anastopoulos, A. D., Reid, R., McGoey, K. E., & Ikeda, M. J. (1997). Teacher ratings of attention deficit hyperactivity disorder symptoms: factor structure and normative data. *Psychological Assessment*, 9, 436–444.
- Elion, V. H., & Megargee, E. I. (1975). Validity of the MMPI Pd scale among black males. *Journal of Consulting and Clinical Psychology*, 43, 166–172.
- Ellickson, P. L., & Morton, S. C. (1999). Identifying adolescents at risk for hard drug use: racial/ethnic variations. *Journal of Adolescent Health*, 25, 382–395.
- Elliott, D. S., Ageton, S., & Huizinga, D. (1980). *Self-reported delinquency estimates by sex, race, class and age*. Washington, DC: Behavioral Science Institute.
- Ellis, L. (1990). Universal behavioral and demographic correlates of criminal behavior. In L. Ellis & H. Hoffman, *Crime in biological, social and moral contexts*. Westport, CT: Praeger.
- Epstein, J. N., March, J. S., Conners, C. K., & Jackson, D. L. (1998). Racial differences on the Conners Teacher Rating Scale. *Journal of Abnormal Child Psychology*, 26, 109–118.
- Eysenck, H. J., & Gudjonsson, G. H. (1989). *The causes and cures of criminality*. New York: Plenum.
- Feng, H., & Cartledge, G. (1996). Social skill assessment of inner city Asian, African and European American students. *School Psychology Review*, 25, 228–239.
- Finer, L. B., Darroch, J. E., & Singh, S. (1999). Sexual partnership patterns as a behavioral risk factor for sexually transmitted diseases. *Family Planning Perspectives*, 31, 228–236.
- Finkelhor, D. (1997). The homicides of children and youth. In G. K. Kantor & J. L. Jasinski, *Out of darkness*. London: Sage.
- Flint, A. J., Yamada, E. G., & Novotny, T. E. (1998). Black-white differences in cigarette smoking uptake: progression from adolescent experimentation to regular use. *Preventative Medicine*, 27, 358–364.
- Flynn, J. R. (1991). *Asian Americans: achievement beyond IQ*. Hillsdale, NJ: Erlbaum.
- Forrest, J. D., & Singh, S. (1990). The sexual and reproductive behavior of American women, 1982–1988. *Family Planning Perspectives*, 22, 206–214.
- Forste, R., & Tanfer, K. (1996). Sexual exclusivity among dating, cohabiting and married women. *Journal of Marriage and the Family*, 58, 33–47.
- Gazmararian, J. A., Adams, M. M., & Saltzman, L. E. (1995). The relationship between pregnancy intendedness and physical violence in mothers of newborns. *Obstetrics and Gynecology*, 85, 1031–1037.
- Gielen, U. P., Reid, C., & Avellani, J. (1989). Perceptions of parental behavior and the development of moral reasoning in Jamaican students. In L. L. Adler, *Cross cultural research in human development*. Westport, CT: Praeger.
- Gillborn, D., & Gipps, C. (1996). *Recent research on the achievements of ethnic minority pupils*. London: Office for Standards in Education.
- Goetting, A. (1989). Patterns of marital homicide: a comparison of husbands and wives. *Journal of Comparative Family Studies*, 20, 341–354.

- Gordon, R., Piana, L. D., & Keleher, T. (2000). *Facing the consequences: an examination of racial discrimination in US public schools*. Oakland, CA: Applied Research Center.
- Gruber, E., DiClemente, R. J., & Anderson, M. M. (1996). Risk-taking behavior among Native American adolescents in Minnesota public schools: comparisons with black and white adolescents. *Ethnicity and Health, 1*, 261–267.
- Guttmacher, A. (1994). *Sex and America's teenagers*. New York: Alan Guttmacher Institute.
- Guze, S. B. (1976). *Criminality and psychiatric disorders*. New York: Oxford University Press.
- Hampton, R. L., Gelles, R. J., & Harrop, J. W. (1989). Is violence in black families increasing? *Journal of Marriage and the Family, 51*, 969–980.
- Hare, R. D. (1983). Diagnosis of antisocial personality disorder in two prison populations. *American Journal of Psychiatry, 140*, 887–890.
- Hare, R. D. (1991). *Manual for the Hare psychopathy checklist — revised*. Toronto: Multi-Health Systems.
- Hare, R. D. (1994). *Without conscience*. London: Warner.
- Harpur, T. J., Hart, S. D., & Hare, R. D. (1994). The personality of the psychopath. In P. T. Costa & T. A. Widiger, *Personality disorders and the five factor model of personality*. Washington, DC: American Psychological Association.
- Hathaway, S. R., & McKinley, J. C. (1940). A multiphasic personality schedule: construction of the schedule. *Journal of Psychology, 10*, 249–254.
- Hathaway, S. R., & McKinley, J. C. (1989). *MMPI-2 manual*. Minneapolis, MN: University of Minnesota Press.
- Henshaw, S. K. (1998). Unintended pregnancy in the United States. *Family Planning Perspectives, 30*, 24–29.
- Herrnstein, R. J., & Murray, C. (1994). *The bell curve*. New York: Free Press.
- Hofferth, S. L., & Hayes, C. D. (1987). *Risking the future: adolescent sexuality, pregnancy and childbearing*. Washington, DC: National Academy Press.
- Hofferth, S. L., Kahn, J. R., & Baldwin, W. (1987). Premarital sexual activity among US teenage women over the last three decades. *Family Planning Perspectives, 19*, 46–53.
- Holmes, S. A. (1999). Survey details problems of minorities and credit. *New York Times*, 22 September, 2.
- Houston, L. N. (1981). Romanticism and eroticism among black and white students. *Adolescence, 16*, 263–272.
- Hunter, W. W., Campbell, B. J., & Stewart, J. R. (1986). Seat belts pay off: the evaluation of a community-wide incentive program. *Journal of Safety Research, 17*, 23–31.
- Jasinski, J. L., & Williams, L. M. (1998). *Partner violence*. Thousand Oaks, CA: Sage.
- Japanese MMPI (1993). *New Japanese MMPI manual*. Kyoto: Sankyoku-Bou.
- Jencks, C. (1992). *Rethinking social policy: race, poverty and the underclass*. Cambridge, MA: Harvard University Press.
- Jensen, A. R. (1998). *The g factor*. Westport, CT: Praeger.
- Johnson, A. M., Wadsworth, M., Wellings, K., & Field, J. (1994). *Sexual attitudes and lifestyles*. Oxford: Blackwell.
- Junger, M., & Polder, W. (1993). Religiosity, religious climate and delinquency among ethnic groups in The Netherlands. *British Journal of Criminology, 33*, 416–435.
- Kalmuss, D. (1992). Adoption and black teenagers: the viability of a pregnancy resolution. *Journal of Marriage and the Family, 54*, 485–496.
- Katz, S., & Mazur, M. A. (1979). *Understanding the rape victim*. New York: Wiley.
- Kenney, J. W., Reinholtz, C., & Angelini, P. (1997). Ethnic differences in childhood and adolescent sexual abuse and teenage pregnancy. *Journal of Adolescent Health, 26*, 210–263.
- Kohlberg, L. (1976). Moral stages and moralisation. In T. Likona, *Moral development and behavior*. New York: Holt, Rinehart and Winston.
- Kraepelin, E. (1915). *Textbook of psychiatry*. Berlin: Springer.
- Kunitz, S. J., Gabriel, K. R., & Levy, J. E. (1999). Risk factors for conduct disorder among Navajo Indian men and women. *Social Psychiatry and Psychiatric Epidemiology, 34*, 180–189.
- Lafree, G., Drass, K. A., & O'Day, P. (1992). Race and crime in postwar America: determinants of African-American and white rates, 1957–1988. *Criminology, 30*, 157–185.
- Langsdorf, R., Anderson, R. P., Waechter, D., Madrigal, J. F., & Juarez, L. J. (1979). *Psychology in the Schools, 16*, 293–298.
- Lauderdale, M., Valiunas, A., & Anderson, R. (1980). Race, ethnicity and child maltreatment: an empirical analysis. *Child Abuse and Neglect, 4*, 163–169.

- Leigh, B. C., Temple, M. T., & Trocki, K. F. (1993). The sexual behavior of US adults: results from a national survey. *American Journal of Public Health, 83*, 1400–1408.
- Lester, D. (1989). Personal violence (suicide and homicide) in South Africa. *Acta Psychiatrica Scandinavica, 79*, 235–237.
- Levin, M. (1997). *Why race matters*. Westport, CT: Praeger.
- Lichter, D. T., McLaughlin, D. K., Kephart, G., & Landry, D. J. (1992). Race and retreat from marriage: a shortage of marriagable men?. *American Sociological Review, 57*, 781–799.
- Loeber, R. (1990). Development and risk factors of juvenile anti-social behavior and delinquency. *Clinical Psychology Review, 10*, 1–41.
- Loo, S. K., & Rapport, M. D. (1998). Ethnic variations in children's problem behaviors: a cross-sectional developmental study of Hawaiian school children. *Journal of Child Psychology and Psychiatry, 39*, 567–575.
- Luk, S. L., & Leung, P. W. (1989). Conners' teacher's rating scale — a validity study in Hong Kong. *Journal of Child Psychology and Psychiatry, 30*, 785–793.
- Luzzo, D. A. (1994). An analysis of gender and ethnic differences in college students' commitment to work. *Journal of Employment Counseling, 31*, 38–46.
- Lykken, D. T. (1995). *The antisocial personalities*. Hillsdale, NJ: Lawrence Erlbaum.
- Lynn, R. (1991). The evolution of race differences in intelligence. *Mankind Quarterly, 32*, 255–296.
- Lynn, R. (1997). Geographical variation in intelligence. In H. Nyborg, *The scientific study of human nature*. Oxford: Pergamon.
- Marks, P. A., Seeman, W., & Haller, D. L. (1974). *The actuarial use of the MMPI with adolescents and adults*. Baltimore: Williams and Wilkins.
- Marsiglio, W. (1987). Adolescent fathers in the United States. *Family Planning Perspectives, 19*, 240–251.
- Martens, P. L. (1997). Immigrants, crime and criminal justice in Sweden. In M. Tonry, *Ethnicity, crime and immigration*. Chicago: University of Chicago Press.
- Mason, D. A., & Frick, P. J. (1994). The heritability of anti-social behavior. *Journal of Psychopathology and Behavioral Assessment, 16*, 301–323.
- McDermott, P. A., & Spencer, M. B. (1997). Racial and social class prevalence of psychopathology among school-age youth in the United States. *Youth and Society, 28*, 387–414.
- Mealy, L. (1995). The sociobiology of sociopathy: an integrated evolutionary model. *Behavioral and Brain Sciences, 18*, 523–599.
- Miller, E. M. (1994). Paternal provisioning versus mate seeking in human populations. *Personality and Individual Differences, 17*, 225–227.
- Miller, E. M. (1995). Environmental variability selects for large families only in special circumstances: another objection to r-K theory. *Personality and Individual Differences, 19*, 903–918.
- Miller, L. S., Klein, R. G., & Piacentini, J. (1995). The New York teacher rating scale for disruptive and antisocial behavior. *Journal of the American Academy of Child and Adolescent Psychiatry, 34*, 359–370.
- Mischel, W. (1961aa). Delay of gratification, need for achievement and acquiescence in another culture. *Journal of Abnormal and Social Psychology, 62*, 543–552.
- Mischel, W. (1961bb). Father absence and delay of gratification: cross-cultural comparisons. *Journal of Abnormal and Social Psychology, 63*, 116–124.
- Model, S., Fisher, G., & Silberman, R. (1999). Black Caribbeans in comparative perspective. *Journal of Ethnic and Migration Studies, 25*, 187–212.
- Modood, T., & Berthoud, R. (1997). *Ethnic minorities in Britain*. London: Policy Studies Institute.
- Moore, K. A., Manlove, J., Gleib, D. A., & Morrison, D. R. (1998). Nonmarital school-age motherhood: family, individual and school characteristics. *Journal of Adolescent Research, 13*, 433–457.
- Moore, K. A., & Stief, T. M. (1991). Changes in marriage and fertility behavior. *Youth and Society, 22*, 286–362.
- Moore, V. L., & Schwebel, A. I. (1993). Factors contributing to divorce: a study of race differences. *Journal of Marriage and Divorce, 20*, 123–135.
- Moran, P. (1999). The epidemiology of antisocial personality disorder. *Social Psychiatry and Psychiatric Epidemiology, 34*, 231–242.
- Munro, B. E., & Adams, G. R. (1978). Correlates of romantic love revisited. *Journal of Psychology, 98*, 211–214.

- Munsch, J., & Wampler, P. S. (1993). Ethnic differences in early adolescents' coping with school stress. *American Journal of Orthopsychiatry*, 63, 633–646.
- Newby, J. H., McCarroll, J. E., Thayer, L. E., Norwood, A. E., Fullerton, C. S., & Ursano, R. J. (2000). Spouse abuse by black and white offenders in the US army. *Journal of Family Violence*, 15, 199–208.
- Niemcryk, S. J., Brawley, M., Kaufman, R. C., & Yount, S. I. (1997). Motor vehicle crashes, restraint use and severity of injury in children in Nevada. *American Journal of Preventative Medicine*, 13, 109–114.
- Nigg, J. T., & Goldsmith, H. H. (1994). Genetics of personality disorders. *Psychological Bulletin*, 115, 346–380.
- Nzewi, E. N. (1998). Use of the MMPI 2 with Nigerian students. *News and Profiles*, 9.
- Ontario (1996). *Report of the commission on systemic racism in the Ontario criminal justice system*. Toronto, Queen's Printer: Ministry of the Solicitor-General and Correctional Services.
- Overpeck, M. D., Brenner, R. A., Trumble, A. C., Trifeletti, L. B., & Berendes, H. W. (1998). Risk factors for infant homicide in the United States. *New England Journal of Medicine*, 339, 1211–1216.
- Park, J. Y., & Johnson, R. C. (1984). Moral development in rural and urban Korea. *Journal of Cross Cultural Psychology*, 15, 35–46.
- Peng, S. S., & White, D. (1994). Explanation of academic achievement of Asian Americans. *Journal of Educational Research*, 87, 346–352.
- Peterson, L. S., Oakley, D., Potter, L. S., & Darroch, J. E. (1998). Women's efforts to prevent pregnancy: consistency of oral contraceptive use. *Family Planning Perspectives*, 30, 19–23.
- Petterson, S. M. (1997). Are young black men really less willing to work? *American Sociological Review*, 62, 605–613.
- Philbrick, J. L., Thomas, F. F., Cretser, G. A., & Leon, J. J. (1988). Sex differences in love attitudes of black students. *Psychological Reports*, 62, 414.
- Philips (1996). *World Atlas*. London: Chancellor Press.
- Porter, B. E., & England, K. J. (2000). Predicting red-light running behavior: a traffic safety study in three urban settings. *Journal of Safety Research*, 31, 1–8.
- Price-Williams, D. R., & Ramirez, M. (1974). Ethnic differences in delay of gratification. *Journal of Social Psychology*, 93, 23–30.
- Pritchard, J. C. (1837). *A treatise on insanity and other diseases affecting the mind*. Philadelphia: Harwell, Barrington and Harwell.
- Raine, A. (1993). *The psychopathology of crime*. San Diego, CA: Academic Press.
- Raine, A., Venables, P. H., & Mednick, S. A. (1997). Low resting heart rate at age 3 years predisposes to aggression at age 11 years: evidence from the Mauritius Child Health Project. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36, 1457–1464.
- Raley, R. J. (1996). A shortage of marriagable men? A note on the role of cohabitation in black-white differences in marriage rates. *American Sociological Review*, 61, 973–983.
- Ram, B., & Ebanks, G. E. (1973). Stability of unions in Barbados. *Social Biology*, 20, 143–153.
- Rest, J. R. (1979). *Development in judging moral issues*. Minneapolis, MN: University of Minnesota Press.
- Rest, J. R. (1986). *Moral development*. Westport, CT: Praeger.
- Rushton, J. P. (2000). *Race, evolution and behavior*. New Brunswick, NJ: Transaction.
- Rutter, M., Yule, W., Berger, M., Yule, B., Morton, J., & Bagley, C. (1974). Children of West Indian Immigrants — 1. Rates of behavioural deviance and of psychiatric disorders. *Journal of Child Psychology and Psychiatry*, 15, 241–262.
- Santinelli, J. S., Brener, N. D., Lowry, & Zabin, L. S. (1998). Multiple sexual partners among US adolescents and young adults. *Family Planning Perspectives*, 30, 271–275.
- Schuster, M. A., Bell, R. M., Nakajima, G. A., & Kanouse, D. E. (1998). The sexual practices of Asian and Pacific Islander high school students. *Journal of Adolescent Health*, 23, 221–231.
- Schwarz, D. F., Grisso, J. A., Miles, C. G., Holmes, J. H., Wishner, A. R., & Sutton, R. L. (1994). A longitudinal study of injury morbidity in an African American population. *Journal of the American Medical Association*, 271, 755–760.
- Seagull, A. A. (1966). Subpatterns of gratification and choice within samples of Negro and white children. *Papers of the Michigan Academy of Science, Arts and Letters*, 51, 345–351.
- Segal, B. (1998). Drinking and drinking related problems among Alaska natives. *Alcohol Health & Research World*, 22, 276–280.

- Seidman, S. N., & Aral, S. (1992). Subpopulation differences in STD transmission. *American Journal of Public Health, 82*, 1297.
- Shi, L. (1999). Experience of primary care by racial and ethnic groups in the United States. *Medical Care, 37*, 1068–1077.
- Silberg, J., Meyer, J., Pickles, A., Simonoff, E., Eaves, L., Hewitt, J., Maes, H., & Rutter, M. (1996). Heterogeneity among juvenile antisocial behaviors: findings from the Virginia twin study of adolescent behavioral development. In Ciba, *Genetics of criminal and antisocial behaviors*. Chichester, UK: Wiley.
- Smith, D. F. (1997). Ethnic origins, crime and criminal justice in England and Wales. In M. Tonry, *Ethnicity, crime and immigration*. Chicago: University of Chicago Press.
- Snipp, S. M. (1991). *American indians: first of this land*. New York: Russell Sage.
- Sonenstein, F. L., Pleck, J. H., & Ku, L. C. (1989). Sexual activity, condom use and Aids awareness among adolescent males. *Family Planning Perspectives, 21*, 152–158.
- Sonenstein, F. L., Pleck, J. H., & Ku, L. C. (1991). Levels of sexual activity among adolescent males in the United States. *Family Planning Perspectives, 23*, 162–167.
- South, S. J. (1993). Racial and ethnic differences in the desire to marry. *Journal of Marriage and the Family, 55*, 357–370.
- South, S. J., & Lloyd, K. M. (1992). Marriage opportunities and family formation: further implications for imbalanced sex ratios. *Journal of Marriage and the Family, 54*, 440–451.
- Sowell, T. (1978). *American ethnic groups*. Washington, DC: Urban Institute.
- Spring, C., Blunden, D. S., Greenberg, L. M., & Yellin, A. M. (1977). Validity and norms of a hyperactivity rating scale. *Journal of Special Education, 11*, 313–321.
- Staples, R., & Johnson, L. B. (1993). *Black families at the cross roads: challenges and prospects*. San Francisco: Jossey-Bass.
- Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980). *Behind closed doors: violence in the American family*. New York: Doubleday.
- Sullivan, M., & Grossman, D. C. (1999). Hospitalization for motor vehicle injuries among American Indians and Alaska Natives in Washington. *American Journal of Preventative Medicine, 17*, 38–42.
- Taylor, D. J., Chavez, G. F., Adams, E. J., Chabra, A., & Shah, R. S. (1999). Demographic characteristics in adult paternity for first births to adolescents under 15 years of age. *Journal of Adolescent Health, 24*, 251–258.
- Taylor, J., & Whitney, G. (1999). US racial profiling in the prevention of crime: is there an empirical basis? *Journal of Social, Political and Economic Studies, 24*, 485–509.
- Tournier, P. (1997). Nationality, crime and criminal justice in France. In M. Tonry, *Ethnicity, crime and immigration*. Chicago: University of Chicago Press.
- Tracy, P. E., Wolfgang, M. H., & Figlio, R. M. (1990). *Delinquency in two birth cohorts*. New York: Plenum.
- Trent, K., & South, S. J. (1992). Sociodemographic status, parental background, childhood family structure and attitudes towards family formation. *Journal of Marriage and the Family, 54*, 427–439.
- United States Department of Health and Human Services (1996). *Child maltreatment*. Washington, DC: Government Printing Office.
- Valois, R. F., Oeltmann, J. E., Waller, J., & Hussey, J. R. (1999). Relationship between number of sexual intercourse partners and selected health risk behaviors among public high school adolescents. *Journal of Adolescent Health, 25*, 328–335.
- Vars, F. E., & Bowen, W. G. (1998). Scholastic aptitude test scores, race, and academic performance in selective colleges and universities. In C. Jencks and M. Phillips, *The black-white test score gap*. Washington, DC: Brookings Institution.
- Vitelli, R. (1996). Prevalence of childhood conduct and attention deficit hyperactivity disorders in adult maximum security inmates. *International Journal of Offender Therapy and Comparative Criminology, 40*, 263–271.
- Volkwein, J. F., Szelest, B. P., Cabrera, A. F., & Napierski-Prancl, M. R. (1998). Factors associated with student loan default among different racial and ethnic groups. *Journal of Higher Education, 69*, 206–237.
- Warren, C. W., Santelli, J. S., Everett, S. A., & Kann, L. (1998). Sexual behavior among U.S. high school students, 1990–1995. *Family Planning Perspectives, 30*, 170–176.
- Westermayer, J. (1977). Cross-racial foster home placement among Native American psychiatric patients. *Journal of the National Medical Association, 69*, 231–236.

- Whitney, G. (1996). Professor Shockley's experiment. *Mankind Quarterly*, 37, 41–60.
- Wiederman, M. W. (1997). Extramarital sex: prevalence and correlates in a national survey. *Journal of Sex Research*, 34, 167–174.
- Wilson, W. J. (1987). *The truly disadvantaged*. Chicago, IL: University of Chicago Press.
- Yao, K.-N., Solanto, M. V., & Wender, E. H. (1988). Prevalence of hyperactivity among newly immigrated Chinese-American children. *Developmental and Behavioral Pediatrics*, 9, 367–373.
- Young, J. W. (1991). Improving the prediction of college performance of ethnic minorities using the IRT-based GPA. *Applied Measurement in Education*, 4, 229–239.
- Zelnick, M., & Kantner, F. M. (1980). Sexual activity, contraceptive use and pregnancy among metropolitan area teenagers. *Family Planning Perspectives*, 12, 230–238.
- Zelnick, M., & Shah, F. K. (1983). First intercourse among young Americans. *Family Planning Perspectives*, 15, 64–70.
- Zytoskee, A., Strickland, B. R., & Watson, J. (1971). Delay of gratification and internal versus external control among adolescents of low socio-economic status. *Developmental Psychology*, 4, 93–98.