

Race Differences in Sexual Behavior and Their Demographic Implications

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Differences between blacks and whites in sexual behavior posited in Rushton's theory of *r-K* race differences were examined in the United States in an analysis of the annual surveys of the National Opinion Research Center for 1990–1996. This data set was analysed for black-white differences in numbers of sexual partners during the last 5 years and for frequency of sexual intercourse. The general pattern of the results was for blacks to report more sexual partners than whites and for black males to report greater frequency of sexual intercourse, consistent with Rushton's theory. This result has implications for the control of the AIDS epidemic and for the demographic transition among blacks.

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

INTRODUCTION

The orthodoxy in demography and other social and biological sciences is that there are no genetically programmed race differences in behavior (e.g., Cavalli-Sforza, Menozzi, & Piazza, 1994; Diamond, 1997). This position has been challenged by Rushton (1995) who has proposed the theory that the three major races of Mongoloids (East Asians), Caucasoids (Europeans and South Asians) and Negroids (sub-Saharan Africans) differ along a continuum of *r-K* reproductive strategies such that Mongoloids are the most *K* and Negroids the most *r*, while Caucasoids are intermediate between the other two races although closer to the Mongoloids. The concept of *r-K*

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reproductive strategies is drawn from biology and was formulated by MacArthur and Wilson (1967). The theory proposes that species can be ordered along a continuum of reproductive strategies. At one end of this continuum are species that produce large numbers of offspring but give little or no care to rearing them. This is designated the *r* strategy and is typically employed by fish, amphibians and reptiles. At the other end of the continuum are species that produce a small number of offspring and devote a considerable amount of care to rearing them. This is the *K* strategy and is employed by primates. Many species of birds and rodents have evolved intermediate strategies between these two extremes.

This theory has been applied by Rushton to the three major human races and used to explain a wide range of race differences including sexual behavior, crime, intelligence, brain size, twinning, physical maturation and mortality. Rushton (1985, 1995, 2000) has contended that Mongoloids have evolved the strongest *K* strategy expressed in (1) a reduced sexual drive as expressed in lower levels of testosterone, later onset of sexual activity in adolescence, less sexual activity and fewer sexual partners; (2) less crime; (3) higher intelligence and brain size; (4) lower rates of dizygotic twinning; (5) slower rates of physical maturation; and (6) lower mortality. Negroids have evolved the strongest *r* strategy in these respects, while Caucasoids fall between the other two races. Rushton maintains that these racial difference evolved over the last 100,000 years or so as a result of the selection pressure exerted by the cold winters of Eurasia on the Caucasoids and even more strongly on the Mongoloids to develop more *K* characteristics. The crucial problem was to survive during the cold winters which required greater intelligence in order to make the weapons and tools necessary to hunt and dismember large animals, and to make shelters, clothing and fires; and which also required greater investment in child care because children were less able to survive without help from their parents and other adults. Rushton's theory should therefore be seen as an application of the principles of sociobiology and evolutionary biology and psychology to the explanation of anatomical (brain size), physiological (testosterone levels) and behavioral differences between the human races.

Rushton's theory has been subjected to a number of criticisms many of which have been summarized by Anderson (1991). In particular, the theory has been faulted by Lynn (1989, p. 2) on the grounds that it is weak in the provision of "evidence that there are race differences in sexual behaviors." It is this component of the theory that we are concerned with in the present paper. The purpose of the paper is to subject to an empirical examination the component of Rushton's theory concerned with differences between blacks and whites in the frequency of sexual intercourse

and the numbers of sexual partners. Rushton's theory predicts that both of these will be greater among blacks than among whites. Rushton (1995) has produced evidence to support this component of the theory from the Kinsey archive on sexual behavior. However, the Kinsey data were obtained from college graduate volunteers and not from representative samples of the population and cannot be regarded as ideal. We therefore examine this component of the theory from a new and more representative data set.

METHOD

The data to be examined are derived from the surveys carried out annually in the United States by the National Opinion Research Center (NORC). These surveys are made on approximately 1,500 individuals drawn as representative national probability samples of adults aged 18 years and over in the continental United States, but excluding those who cannot speak English and in institutions such as prisons and hospitals. Full details of the sampling procedures are provided by Davis and Smith (1996). The data to be examined consist of the respondents' race (black or white; the third category of "other" is disregarded), the number of sexual partners during the last 5 years, and the reported average amount of sexual intercourse per week during the last year. Data on these variables were obtained during the years 1990, 1991, 1993, 1994 and 1996. These have been aggregated in the results to be reported.

RESULTS

The results are shown in Table 1. The numbers of respondents differ for the two questions because some of the respondents did not answer both questions. The table gives first the numbers of sexual partners during the last five years and provides data on the number of respondents, the mean and the standard deviation for black and white males and females, and the statistical significance of the black-white difference determined by t-tests. Black males and females both had significantly more partners than whites. Given next in the table are the numbers of acts of sexual intercourse per week estimated during the last year. The results show that black males had significantly more sexual intercourse than whites but among females the difference was negligible.

TABLE 1
Numbers of Sexual Partners and Frequency of Sexual Intercourse of Blacks and Whites

	<i>Blacks</i>	<i>Whites</i>	<i>t</i>
Number of Sexual Partners in Last 5 Years			
Males			
N	291	2644	
Mean	2.61	1.89	6.54***
SD	1.80	1.62	
Females			
N	572	3381	
Mean	1.63	1.36	4.55***
SD	1.32	1.27	
<i>Frequency of Sexual Intercourse</i>			
Males			
N	374	3104	
Mean	3.54	3.11	4.39***
SD	1.80	1.84	
Females			
N	653	3883	
Mean	2.72	2.71	NS
SD	2.02	2.04	

***Denotes statistical significance at $p < .001$.

DISCUSSION

The study tests four predictions from Rushton's theory to the effect that blacks would have had more sexual partners than whites during the last five years and that blacks would report more acts of sexual intercourse, and that these differences would hold for both males and females. Three of these predictions were confirmed at a high level of statistical significance. These are that black males and females both reported more sexual partners during the last five years and black males reported more acts of sexual intercourse. Only the prediction that black females would report more acts of sexual intercourse failed to be confirmed. There are three possible explanations for this. First, people do not necessarily report their sexual behavior accurately, either because of inaccurate memories or through deliberate falsification. Some inaccuracy in these reports is suggested by the different frequencies of the sexual behaviors reported by males and females. Males

report more sexual activity than females in this data set and this is a common feature of surveys of this kind. It would be expected that males and female would report closely similar amounts of sexual activity but the data in the table show that males report about fifty percent more than females. It is possible that black women understate their amount of sexual activity more than white women (see also below). A second possible explanation is that there are fewer black males available for black females than there are for whites. This is due to the higher mortality of blacks, their greater numbers in prison and the greater numbers who are homeless. It is estimated by Flynn (1991) that for every 100 young black women there are 95 black men still alive, 2 are in prison (about seven times more than whites and excluded from the surveys) and 10 are homeless, adding up to 83 who are possible or desirable sexual partners. This shortage of black males is likely to reduce the amount of sexual intercourse of black females. A third possible factor is that black males appear to have a stronger preference for sex with whites females than white males do with black females (Tucker & Mitchell-Kiernan, 1990). This also would also tend to reduce the amount of sexual intercourse of black females. Thus the result that black and white females report the same amount of sexual intercourse does not seriously disconfirm Rushton's theory, while the three positive results support it.

It may be objected that self-reports of sexual behavior are not reliable and there could be race differences in reported behavior which are not present in reality. To meet this point it is useful to show that the race differences in reported sexual behaviors are corroborated by objective data. With regard to males, the results showing that blacks report having more sexual partners and a greater frequency of sexual intercourse than whites are corroborated by studies showing that black men have higher levels of testosterone, the hormone stimulating the sexual drive. Ross et al. (1986) have found in a study of college students that testosterone levels were 19 percent higher among blacks than among whites. A similar result has also been found in a study of Vietnam war veterans (Ellis & Nyborg, 1992). These differences in testosterone levels are consistent with differences in the incidence of cancer of the prostate, for which testosterone levels are a cause (Ghanadian, Puah, & O'Donhue, 1979; Ahluwalia, Jackson, & Jones, 1981). In the United States the incidence of prostate cancer is approximately twice as great among blacks as among whites (Zaridze, Boyle, & Smans, 1984; Meyerowitz et al., 1998).

With regard to females, the tendency of blacks to report having a greater number of sexual partners is corroborated by the greater incidence of cancer of the cervix among black women (13.2 per 100,000 in the United States, 1988–92) than among white women (7.6 per 100,000) (Mey-

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erowitz et al., 1998). It is well established that cancer of the cervix is associated with a greater number of sexual partners (Deeley, 1976). It is also known that cancer of the cervix is associated with the frequency of sexual intercourse (Deeley, 1976), suggesting that in the data reported in Table 1 the frequency of sexual intercourse may have been under-reported by black women. With this exception, the race differences in reported sexual behaviors are well corroborated by the cancer data.

These results from the United States are consistent with the findings of a survey of differences between blacks and whites in sexual behavior carried out in Britain in the early 1990s (Johnson et al., 1994). Here, in a nationally representative sample of 10,307, 46 percent of black men reported having had two or more sexual partners during the last five years, as compared with 35 percent of white men. Among females, 28 percent of blacks reported having had two or more sexual partners during the last five years as compared with 23 percent of whites. With regard to frequency of sexual intercourse, the median reported by black men was 4 times a week and the median for white men 3 times a week. Among black women, the median was 2 times a week compared with 3 times a week for white women. We note that white men and women report the same median frequency of sexual intercourse, as would be expected, and are closely similar to the results for the United States. But among blacks the figures are inconsistent with black men reporting twice the frequency of sexual intercourse as black women. The same inconsistency in the reports of black men and women is present in the United States and suggests that black women under-report their sexual behavior in both the United States and Britain.

The greater number of sexual partners reported by blacks in the United States and Britain suggests a stronger propensity for polygamy among blacks. This is also present among blacks in sub-Saharan Africa where polygamy is widespread and monogamous pair bonding weaker than among European peoples. Caldwell and Caldwell (1990, p. 84) note that in sub-Saharan Africa "typically from 20 to 50 percent of wives are in polygamous marriages and most must be prepared for the likelihood that their husbands will acquire extra wives." In a recent review Speizer and Yates (1998) conclude that polygamy in sub-Saharan Africa varies from 11.6 percent of married women in Burundi to 52.3 percent of married women in Togo.

The high prevalence of polygamy in sub-Saharan Africa is typically explained by demographers and anthropologists in terms of cultural factors. Noting the failure of fertility to decline in sub-Saharan Africa, Caldwell and Caldwell ask "What makes sub-Saharan Africa different from the rest of the world?" (1990, p. 82). They believe the answer is that there are alluvial flood plains in Europe and Asia that enabled peoples to accumulate agricul-

tural surpluses and hold them as wealth. This led to the desire to preserve this wealth in families, which in turn led to social conventions and religious teaching designed to restrict sexuality to within marriage. The absence of alluvial flood plains in sub-Saharan Africa meant that there never developed "the obsessive concern about premarital and extra-marital chastity or to the distinction between legitimate and illegitimate children that is found in Mediterranean and South Asian societies" (p. 84). This theory encounters several problems. For instance, many European countries such as Switzerland and Scandinavia lacking alluvial flood plains have nevertheless developed monogamy. Second, the greater propensity of blacks for polygamy has survived two to three hundred years of living in the United States and the Caribbean, from which most British blacks originate. It is questionable whether a propensity for polygamy supposedly due to the impossibility of accumulating wealth in sub-Saharan Africa would have survived so long in the United States and Britain if it were solely a cultural phenomenon. Third, the greater propensity for polygamy among blacks and their greater frequency of sexual intercourse are attributable to their stronger sexual drives caused by a higher level of testosterone, which is more likely to be a genetic than a cultural difference.

Taken as a whole the evidence suggests the need for a paradigm shift in the theory of race differences in sexual behaviors in which the prevailing culture theories are replaced by the *r-K* theory of genetically influenced race differences. Such a paradigm shift has applications to a number of important issues in the social and biological sciences. One of the foremost of these is the absence of a significant decline of fertility in sub-Saharan Africa as compared with the rest of the world. The demographic transition of the reduction in the numbers of children occurred first in Europe in the nineteenth century and spread in the twentieth century to the remainder of the world, with the exception of sub-Saharan Africa (Caldwell, 2000; Kirk & Pillel, 1998). Demographers have noted this failure of the reduction of fertility to take place in sub-Saharan Africa and observed that blacks do not want to reduce their numbers of children to the same extent as other peoples: "African women want families twice as large as do people in even the poorest Asian or Latin American countries and African men, commonly polygamous, want much larger families still. Elsewhere in the developing world, women are only too happy to cease childbearing with four living children, but not in Africa" (Caldwell & Caldwell, 1990, p. 82). Some demographers, assuming blacks are just the same as whites, believe that blacks will reduce their fertility to the same level as whites and Orientals in the relatively near future. For example, this assumption is made by Coleman (1995) in estimating the future growth of the black population in Brit-

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ain. Contrary to this assumption, *r-K* theory predicts that blacks are unlikely to reduce their fertility to the same level as that of whites and Orientals for the foreseeable future. The demographic implications of *r-K* theory are that the fertility of blacks is likely to remain higher than is currently assumed. This will lead to greater growth of black populations than is currently envisaged by demographers.

Another issue for which *r-K* theory has important implications is the spread of the AIDS epidemic. There is a substantially higher incidence of HIV and AIDS among blacks in the United States, sub-Saharan Africa, the Caribbean and Europe than among whites and Orientals (UNAIDS, 1999). A number of social scientists such as Caldwell (2000) have recognised that a major factor responsible for this is the greater numbers of sexual partners of blacks, which spreads the infection more rapidly. However, their belief that cultural factors are responsible for the greater numbers of sexual partners of blacks leads them to suppose that this could be reduced by environmental interventions. Thus, Caldwell (2000, p. 131) recommends as part of a strategy to arrest the AIDS epidemic in Africa that wives "need support in persuading their husbands to lead less risky sex lives." The *r-K* theory suggests that this would be more difficult to achieve than if the desire of black men for a number of sexual partners were solely a cultural phenomenon. More generally, *r-K* theory suggests that the spread of the AIDS epidemic among blacks will be more difficult to halt than is currently supposed because of a genetically influenced propensity of blacks to seek more sexual partners. Thus *r-K* theory predicts that black fertility will remain high but the impact of this on the growth of black populations will be offset by higher mortality from AIDS. Both of these propensities need to be factored into projections of the future growth of black populations.

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