

Race Differences, *r*/*K* Theory, and a Reply to Flynn

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Flynn's (1989) courteous and scholarly critique of my work is nonetheless a polemic; he tactically manoeuvres around the main thrust of *r*/*K* theory and the data gathered on human populations (see Table 1). The crux of the matter—and I wish to emphasise that this is the essential point—is that any theory proposed to explain the differences among the races must be judged by its ability to account for the total pattern of correlated variables in which Caucasoids average so consistently *between* Mongoloids and Negroids. Flynn disingenuously claims that his reduction "simplifies what is at issue" for if crime and IQ were not involved "who would care" (p.364). Then by obfuscating the comparative crime figures with historical allusions and discussing technical aspects of Mongoloid IQ (Orientals only score higher when assessed on "obsolete" norms), attention is lost from the overall pattern shown in the table. It is inappropriate not to consider the racial differences in temperament, reproductive physiology, sexuality including AIDS, and marital stability for all these require explanation irrespective of their relation to crime and IQ.

Although the psychological study of race has focussed for over 70 years on the differences between blacks and whites in the United States, mainly on intelligence, where whites have been scoring consistently about 1 standard deviation higher than blacks, the explanation remains controversial. Environmentalists emphasise test bias, nutrition, family structure, and the disadvantages to living in a racist society; hereditarians point to the twin and adoption studies showing a 50 per cent heritability for IQ scores within populations and then generalise to the differences between them. A 1984 survey of experts from disciplines concerned with mental testing reveals that 53 per cent of those expressing an anonymous opinion agreed with a partly genetic hypothesis, and only 17 per cent favoured an entirely environmental explanation (Snyderman & Rothman, 1988).

Expanding the data base

My research broadened the data base on race by (a) including Mongoloid samples (one-third of the world's population), (b) including other Negroid samples (most black people live in post-colonial Africa), and (c) considering variables in addition to IQ. I concluded that the racial group differences in intelligence are to be observed worldwide, in Africa and Asia, as well as in Europe and North America and that they are paralleled by more than 50 other variables including brain size, maturation rate, personality and temperament, sexuality, and social organisation (Lynn, 1987; Rushton, 1988a, 1988b; but see Zuckerman & Brody, 1988). Such a network of evidence allows more chance of finding powerful theories than do single items.

The central question is: Why should Caucasian populations average so consistently between Negroid and Mongoloid populations on so many variables? While socialisation obviously plays a significant role in achievement, sexuality, and social organisation, other observations such as the speed of physical maturation, morphology, and the production of gametes (indexed by the production of dizygotic two-egg twins in which the rate per 1,000 among Mongoloids is 4, among Caucasoids 8, and among Negroids, 16) imply the presence of evolutionary and therefore genetic influences. It is not simply IQ score differences that require explanation.

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r/K evolutionary theory

The racial pattern is ordered by a theory from animal evolution in which *r/K* reproductive strategies are applied to human differences and in which Mongoloids are posited to be more *K*-selected than Caucasoids and Negroids. *K*-selected reproductive strategies emphasise parental care and are to be contrasted with *r*-selected strategies which emphasise fecundity, the bioenergetic tradeoff between which underlies cross-species differences in brain size, speed of maturation, reproductive effort, and longevity (Rushton, 1985, following Wilson, 1975).

In studies of dandelions, fish, flies, milkweed bugs, and field mice, many of the covariant *r/K* traits are also found within species and to be genetic in origin. There is no reason why such analyses should not be applied to human differences. One analysis for example, contrasted within the Caucasoid population, the characteristics of the mothers of dizygotic twins who, because they produce more than one egg at a time can be considered to represent the *r*-strategy, with the mothers of singletons representing the *K*-strategy. As expected, the former were found to have a lower age of menarche, a shorter menstrual cycle, a higher number of marriages, a higher rate of coitus, a greater fecundity, more wasted pregnancies, an earlier menopause, and an earlier mortality (Rushton, 1987).

Although the fit is not perfect, no other theory currently comes closer to explaining the known facts about racial

group differences. Moreover, the data provided in Table 1 may be used to decide between reconstructions of human evolution. Data from molecular biology (blood group, serum protein, mtDNA and nuclear DNA) as well as the paleontological data, suggests a recent single-origin for the emergence of modern humans instead of older multi-regional origins (Stringer & Andrews, 1988; Simons, 1989). An African beginning is envisaged, perhaps even as recently as 140,000 to 290,000 years ago with an African-non African split perhaps only 110,000 years ago, then a European-Asian split about 41,000 years ago. Thus the sequence in which the races emerged in earth history parallels the phased linearity of the suite of *r/K* characters shown in Table 1. This parallel is not readily predictable from the multiregional origin models based on long periods of separation, in which no consistent pattern of character appearance is expected.

Not superior or inferior

I disavow the widespread use of the terms "superior" and "inferior". From an evolutionary perspective, being "better" can refer only to success at genetic replication and there is no way to assess whose genes will be maximally represented on this planet even 100 years from now. Flynn (1989) does not accuse me of using this terminology but he does suggest that there is a subjective dimension to my use of such terms as "progressive" in referring to directional trends in evolution. The notion of progress in evolution, however, is an

Table 1: Relative Ranking of Populations on *r/K* Associated Attributes (After Rushton, 1989a)

	Mongoloids	Caucasoids	Negroids
<i>Brain weight and intelligence</i>			
Cranial capacity	1448 cc	1408 cc	1334 cc
Brain weight at autopsy	1351 g	1336 g	1286 g
Millions of "excess neurons"	8900	8650	8550
IQ test scores	107	100	85
<i>Maturation rate</i>			
Gestation time	?	Medium	Fast
Skeletal development	?	Medium	Fast
Age of walking	Slow	Medium	Fast
Age of first intercourse	Slow	Medium	Fast
Age of first pregnancy	Slow	Medium	Fast
Brain weight decline begins	Age 35	Age 25	?
Life-span	Long	Medium	Short
<i>Personality and temperament</i>			
Activity level	Low	Medium	High
Aggressiveness	Low	Medium	High
Cautiousness	High	Medium	Low
Dominance	Low	Medium	High
Impulsivity	Low	Medium	High
Sociability	Low	Medium	High
<i>Reproductive effort</i>			
Multiple birthing rate	Low	Medium	High
Size of genitalia	Small	Medium	Large
Secondary sex characteristics	Small	Medium	Large
Intercourse frequencies	Low	Medium	High
Permissive attitudes	Low	Medium	High
Sexually transmitted diseases	Low	Medium	High
Androgen levels	Low	Medium	High
<i>Social organisation</i>			
Law abidingness	High	Medium	Low
Marital stability	High	Medium	Low
Mental health	High	Medium	Low

intriguing one which, partly for ideological reasons, may have been foreclosed too readily (Bonner, 1988; Nitecki, 1988). To be significant, evolutionary trends do not have to lead to humans at the apex; similar trends can be observed in plants and would be of interest were humans to discover life forms on other planets.

Social organisation

Stable social organisation depends on individuals following rules, a construct which can be indexed through marital functioning, mental durability, and law abidingness. On each of these measures, the rank ordering within American populations is Mongoloid > Caucasoid > Negroid, and cross-cultural studies suggest these findings may be generalisable (Rushton, 1988a). Flynn (1989) finesses this by raising what is really the *non-sequitur* of authority-driven criminality in China, Russia and Germany. Individually motivated and capricious murder is universally condemned and clearly provides a better index of social disorganisation without raising any issues about political values. With homicide, the United States has the highest rate in the industrialised world, but 49 per cent are committed by Negroids and 13 per cent by Hispanics. Moreover, the US murder rate cannot compare with that of Black Africa: the rate in Kenya and Nigeria is much higher (Brantingham & Brantingham, 1984). In China and Japan, however, the murder rate is lower than in either white America or in Europe.

A similar racial pattern of social organisation is found when assessed historically. Two and a half thousand years ago China governed 50 million people via an Imperial bureaucracy with universally administered entrance exams leading to the Inner Cabinet (Bowman, 1989); this arguably surpassed the achievements of equivalent European civilisations, including that of the Roman Empire. In Africa, however, written languages were not invented and the degree of bureaucratic organisation therefore necessarily limited (Baker, 1974). Post-colonial African social organisation still lags significantly behind the rest of the world (Lamb, 1987).

Chinese and Japanese IQ

Flynn (1989) accepts that Oriental Americans academically outperform their white American counterparts but denies that this is because of their higher IQ scores. This debate has all the hallmarks of the controversy about black-white differences in achievement, with many admitting the differences in achievement but denying they are due to intelligence. Flynn does not explain the following: (a) the three indices of brain size reported in Table 1 showing that Mongoloids have larger and heavier brains than Caucasoids; (b) a major US study, *The Coleman Report* (1966), examining the cumulated effects by grade 12, concluded that "At the 90th percentile, the Orientals' nonverbal ability score is higher than that of whites in any region..." (p. 219); (c) after reviewing data on mathematically precocious youth in the United States, Steen (1987) reported that the proportion of Asian-Americans who achieve high mathematics scores (above 650) on the Scholastic Aptitude Test is twice the national average, while the proportion of black students is less than 1/4 the national average, and internationally 5th and 12th grade level students in China and Japan score higher than equivalent white Americans, whereas those from African countries do not; (d) the finding by Nagoshi, Johnson and Honbo (1989) that the Oriental pattern of performance (high visuo-spatial/low verbal) is itself heritably distinct from the Caucasian pattern.

The generalisability of genetic effects

Many of the variables on which the races differ are 50 per cent heritable (Loehlin, Willerman & Horn, 1988). Flynn (1989) believes it is impossible to generalise from these within-group heritabilities to between-group differences. The generalisability question though is an empirical one and I have found, across a variety of ethnic and national groups, that estimates of genetic influence calculated on one sample significantly correlate with those calculated on other samples. With IQ, for example, genetic dominance effects calculated in Japan for the WISC subjects in the 1950s predict black-white difference scores on the WISC-R in the 1970s (Rushton, 1989b). Thus estimates of genetic influence may be more robust across populations, languages, time periods and measurement specifics than has been considered to date.

Flynn (1989) discusses evidence from various pre-pubertal inter-racial adoption studies but fails to note that after puberty, black educational achievement, social deviance, and psychopathology show regression to the black population mean (Scarr, Weinberg & Garguilo, 1987), results which dovetail with other twin and adoption data. Whereas the "common family environment" has effects on development up until puberty, post-adolescence the causal influences are the genetic and "within-family" variety (Plomin & Daniels, 1987). The changeover at puberty may be the result of an increasingly active organism capable of shaping its own environment in a direction canalised by its underlying genotype (Rushton, Littlefield & Lumsden, 1986).

Conclusion

Ideas that disturb established social order necessarily evoke spirited resistance. That across populations brain size negatively correlates with gamete production and that both covary with a suite of life history attributes, the whole being predicted on the basis of evolutionary theory backed by empirical studies of animals (and plants) will not be explained by analyses of isolated variables. Moreover, if individuals are biased to learn or produce patterns of culture maximally compatible with their genotypes, then group dissimilarities in cultural patterns may be as much a result as the cause of the differences.

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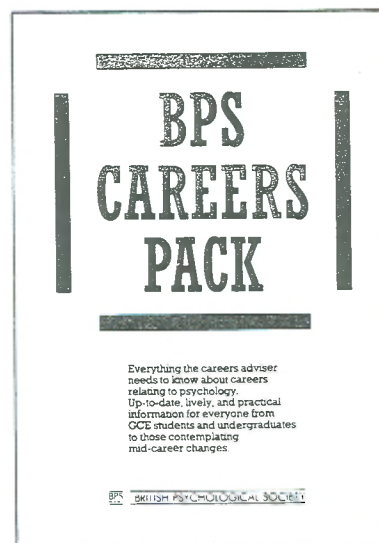
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