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13

Darwin's *Really* Dangerous Idea—The Primacy of Variation

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Evolution is the science of variation and selection. As such, establishing the Darwinian perspective in the social sciences has been much impeded by “political correctness,” an ideology about social equality. Although there is much agreement about slow progress in establishing the Darwinian perspective in social science, there is little consensus as to the cause. I argue that egalitarianism has been the root cause of opposition to evolutionary thinking in the 25 years since E. O. Wilson’s monumental *Sociobiology* (1975), the 35 years since William Hamilton’s (1964) seminal formulations, and the 125-plus years since Charles Darwin’s *Origin of Species* (1859) and *Descent of Man* (1871).

It is yet to be recognized, however, that much of the politically inspired resistance comes from evolutionary scientists themselves. By overemphasizing the search for universals, that is, pan-human traits (partly to show people’s commonalities), many evolutionists eschew the very comparative method that created the Darwinian Revolution in the first place. While developing my general thesis, I provide specific evidence from personal experience over the last 15 years researching genetic variation in traits such as altruism, brain size, and IQ, and race, evolution, and behavior (Rushton, 1995b).

Although Darwinians emerged victorious in their nineteenth-century battles against biblical theology in academia and educated opinion, subsequently they lost this ground to liberal egalitarians, Marxists, cultural-relativists, and literary deconstructionists. From Herbert Spencer (1851) to the world depressions of the late 1920s and 1930s, the political right gained the ascendancy in using evolutionary theory to support their arguments, while the political left came to believe, perhaps correctly, that “survival of the fittest” was incompatible with social

equality. Darwinian has been marginalized ever since the mid-1920s when the Boasian school of anthropology succeeded in decoupling the biological from the social sciences (Degler, 1991).

Although William McDougall proposed an "instinct" theory of personality, and G. Stanley Hall and others advanced an evolutionary perspective for developmental psychology, Darwinian views were swept away in the 1920s by various environmentalist dogmas. Freud's Oedipal theories and Watson's behavioral molding of individuals were compatible with Marx's assumptions of the malleability of entire social groups through government interventions.

Hostility to Nazi racial theories tainted any attempt to restore whatever remained of Darwinism to the social sciences. From the 1930s onward, scarcely anyone outside of Germany and its Axis allies dared to suggest that any group of individuals might be genetically different from any other in respect to behavior lest it should appear that the author was endorsing or excusing the Nazi cause. Even today, consideration of ethnic differences in intelligence leads to accusations of Nazism, even if one is a Jewish scientist describing how Jews average higher IQs than non-Jews (e.g., Seligman, 1992, Chapter 10; Herrnstein & Murray, 1994, Chapter 13).

Those who believed in the biological identity of all people, on the other hand, remained free to write what they liked, without fear of vilification. In the intervening decades, the idea of a genetically based core of human nature on which individuals and groups might differ was consistently derogated. This intellectual movement has been politically fueled by successively coupling it to Third World decolonization, the U.S. civil rights movement, the struggle against apartheid in South Africa, and the renewed debates over immigration.

Opposition to the existing political order has long been a tradition in universities. Today most evolutionary scientists subscribe to the concept of political equality rather than hierarchy. They also posit far more malleability to human nature than may be the case. Whether out of ideological or prudential considerations, current evolutionary scientists focus on pan-human traits that all people share (with the notable exception of sex differences), and they also emphasize "facultative adjustment" (the noncontroversial view that people alter their behavior depending on their circumstances), which, taken to extremes, denigrates heritable traits as causes of behavior.

THE PRIMACY OF VARIATION

Focusing on pan-human traits has solidified our knowledge of human nature and emphasized the continuity between humans and other primates (see, for example, Barkow, Cosmides & Tooby, 1992; Tooby & Cosmides, 1990; Bailey, 1997; and Wilson, 1994). However, ignoring or minimizing the role of heritable variation goes against the two basic postulates of Darwinian theory: (1) that genetic variation exists within species and (2) that differential reproductive success favors some varieties over others. In both *Origins* (1859) and *Descent*

(1871), Darwin left no doubt about the importance he ascribed to both individual and racial variation. For example:

Hence I look at individual differences, though of small interest to the systematist, as of high importance for us, as being the first step towards such slight varieties as are barely thought worth recording in works on natural history. And I look at varieties which are in any degree more distinct and permanent, as a step leading to more strongly marked and more permanent varieties; and at these latter, as leading to sub-species, and to species. . . . Hence I believe a well marked variety may be justly called an incipient species. (1859: 107)

Sir Francis Galton (1865, 1869) immediately recognized the implications of his cousin Darwin's theory for understanding the importance of variation in humans. He gathered evidence for the existence and heritable nature of variation, thus anticipating the concept of heritability and other later work in behavioral genetics. Galton carried out surveys and found, for example, that good and bad temper and cognitive ability ran in families. He discovered the phenomenon of regression-to-the-mean and argued that it implied family variation was heritable.

Galton also reviewed accounts contrasting the taciturn reserve of American Indians with the talkative impulsivity of Africans. He noted that these temperamental differences persisted regardless of climate (from the frozen north through the equator), religion, language, or political system (whether self-ruled or governed by the Spanish, Portuguese, English, or French). Anticipating later work on transracial adoption, Galton pointed out that the majority of individuals adhered to their racial type, even if they were raised by white settlers. He also wrote that the average mental ability of Africans was low, whether they were observed in Africa or in the Americas. In *Descent*, Darwin acknowledged Galton's work and also accepted the brain-size differences between Africans and Europeans found by Paul Broca and other nineteenth-century scientists.

In this chapter, I argue that the Darwinian-Galtonian paradigm was abandoned for political rather than scientific reasons. I also assert that the most recent scientific data are more understandable from the Darwinian-Galtonian perspective than the egalitarian one that displaced it.

BEHAVIORAL GENETICS

Consider the results shown in table 13.1. It presents data from a twin study of the heritability of altruism and aggression that I carried out in the early 1980s (Rushton, Fulker, Neale, Nias, & Eysenck, 1986). Over 500 pairs of twins were sent self-report questionnaires measuring their empathy, altruism, and aggression. Recall that twins come in two kinds—monozygotic (MZ) or identical twins, who share 100 percent of genes in common, and dizygotic (DZ) or fraternal twins, who share 50 percent of genes in common (as do ordinary siblings). Both correlational and model-fitting analyses showed that identical twins were

Table 13.1
Variance Components for Altruism and Aggression Questionnaires from 573
Adult Twin Pairs

Trait	Additive Genetic Variance		Shared Environmental Variance		Nonshared Environmental Variance	
	%	(%)	%	(%)	%	(%)
Altruism	51	(60)	2	(2)	47	(38)
Empathy	51	(65)	0	(0)	49	(35)
Nurturance	43	(60)	1	(1)	56	(39)
Aggressiveness	39	(54)	0	(0)	61	(46)
Assertiveness	53	(69)	0	(0)	47	(31)

Source: Adapted from Rushton, Fulker, Neale, Nias, and Eysenck (1986, p. 1195, Table 4). Copyright 1986 by the American Psychological Association. Reprinted with permission. Estimates in parentheses are corrected for unreliability of measurement.

twice as similar in their responses to altruism questionnaires as were fraternal twins. Genetic and environmental factors each contributed about 50 percent to the total variance in individual differences.

The results in table 13.1 also highlight an important distinction between two sources of environmental influence. Shared environmental factors (those common to children reared together) cause similarities in their behavior, while nonshared environmental factors (those unique to children reared together) cause differences. For example, parents with two unrelated adopted children provide a common rearing environment—a shared environment that should make the unrelated siblings similar in some respects. But the children also have individual interactions with their parents and distinct perceptions of family encounters that may influence each sibling in a unique way.

Research shows that it is the nonshared environment that accounts for most of the environmental influence on children's personalities and IQ. The most psychologically important environmental influences turn out to be those that make children in a family different from, not similar to, one another (Plomin & Daniels, 1987). A good example is the birth order effect, first-borns being more achieving and more authoritarian, while later borns are consequently "nurtured to rebel" and possibly be more creative (Sulloway, 1996).

Heritabilities of about 50 percent are typically found for behavioral characteristics including intelligence, mental illness, criminality, political values, vocational interests, and even religiosity (Plomin, DeFries, McClearn, & Rutter, 1997). The heritability of intelligence is now well established from numerous adoption, twin, and family studies. Particularly noteworthy are the heritabilities of around 80 percent found for adult twins reared apart (Bouchard, Lykken, McGue, Segal, & Tellegen, 1990). Moderate to substantial heritabilities for IQ

have also been found in studies of nonwhites, including African Americans (Osborne, 1980) and Japanese (Lynn & Hattori, 1990). Even the most critical of meta-analyses find IQ almost 50 percent heritable (Devlin, Daniels, & Roeder, 1997).

In a twin study of cranial size based on external head measurements among 13- to 17-year-olds (472 individuals, boys and girls, blacks and whites), Rushton and Osborne (1995) found heritabilities of about 50 percent. Age, sex, and race differences were also found; cranial size increased from age 13 to 17, from girls to boys, and from blacks to whites. The heritabilities did not vary significantly by sex or race, although there was a trend for them to be lower in blacks than in whites, making it likely that the black sample had been reared in a less benign environment.

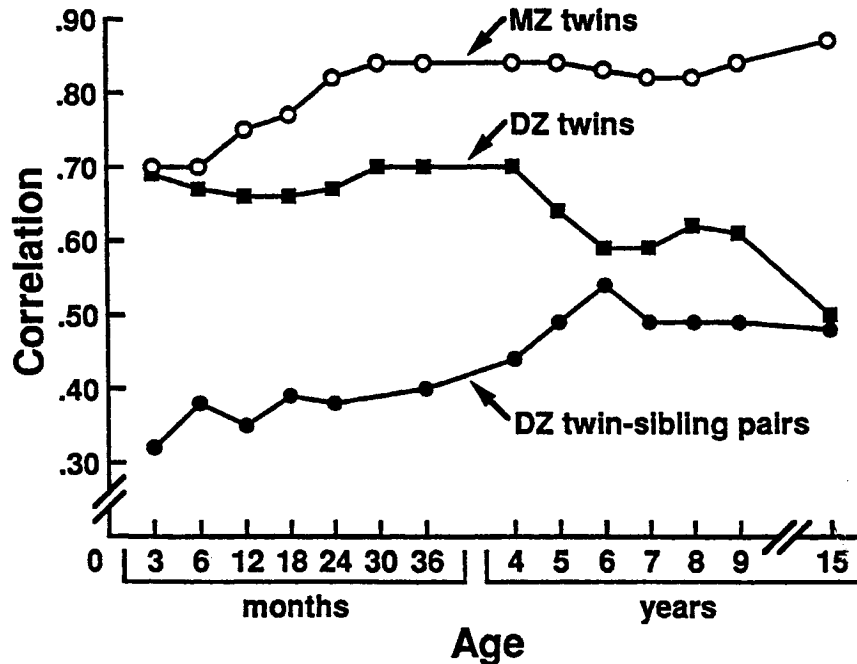
Unfortunately for social science, academics all too often sneer at heritability studies, not only when they cover obviously sensitive topics like IQ and brain size, but even studies of altruism. Many, including some evolutionists, were outraged when I published my results on altruism and aggression in the mid-1980s. Some even raised highly dubious objections to the well-established twin methodology. For example, sociobiologist David Barash (1995), reviewing my book *Race, Evolution, and Behavior*, claimed that it was impossible to separate genetic from environmental contributions. He argued, sarcastically, that a five foot six inch tall woman could not be divided into a genetic height of two feet nine inches and an environmental height of 2'9". But Barash's comment speaks only to his own ignorance of or antipathy to behavioral-genetic methods, not the inadequacy of heritability estimates. When the sample size is only one person, as in his example, there is no variance to be explained; but when the samples consist of 500 to 1,000 people, as in my studies, several statistical procedures, routinely used in plant and animal research, exist for partitioning variance.

Genetic influences on behavior during development are well illustrated in R. S. Wilson's (1983) longitudinal study which tested the IQ scores of some 500 pairs of twins at the ages of 3, 6, 9, 12, 18, 24, and 30 months, then yearly from 3 through 9 years, with a final followup at 15 years (see figure 13.1). The results show that the differentiation between monozygotic twins and dizygotic twins is not very pronounced in the early years when the environment (through gestation and other influences) has its major effect. But genetic influences are continuously at work, and so, by 6 years of age, while the monozygotic twin correlations had reached the upper 0.80s, the dizygotic twin correlations had dropped to about 0.50 to which the ordinary sibling correlations had risen—exactly as the genetic hypothesis would predict.

BRAIN SIZE AND COGNITIVE ABILITY

Variation in brain size is related to variation in cognitive ability. Galton (1888) was one of the first to quantify this relationship. His subjects were 1,095

Figure 13.1
Correlations Proportionate with Shared Genes for Mental Development



Note: Due to common and specific environmental influences, during the first months of life the differentiation between the two zygosity groups is not very pronounced, whereas that between DZ-twin-sibling sets is overpronounced. Genetic influences are continually at work, and by six years of age, while the MZ-twin correlations remained in the upper 0.80s, the DZ-twin correlations had dropped and the DZ-twin-sibling correlations had risen and were not significantly different from each other.

Source: Adopted from R. S. Wilson (1983, p. 311, figure 4). Copyright 1983 by the Society for Research in Child Development. Reprinted with permission.

Cambridge undergraduate men divided into those who had achieved first-class honors degrees and those who had not. Galton computed head volume by multiplying head length by breadth by height and plotting the results against age (19 to 25 years) and class of degree (A, B, C). He reported that: (1) cranial capacity continued to grow after age 19; and (2) men who obtained high honors degrees had a brain size from 2 to 5 percent greater than those who did not. In 1906, Sir Karl Pearson reexamined Galton's data using his newly developed correlation coefficient and found a small positive relationship between head size and university grade. This has remained the consensus scientific conclusion among those actually working in the field (see the review by Rushton & Ankney, 1996).

The published research that most clearly shows the correlation between brain size and intelligence employs state-of-the-art magnetic resonance imaging (MRI) technology, which creates a three-dimensional image of the brain of living subjects. In eight separate studies with a total sample size of 381 nonclinical adults, an overall correlation of 0.44 was found between MRI-measured brain size and IQ. This correlation is about as strong as the relationship between socioeconomic status of origin and IQ (which may itself be partly genetic). The relationship between a subtest's correlation with brain size and its loading on the general factor of intelligence (known as *g*), is even larger—0.60! (Jensen, 1994, 1998; Wickett, Vernon, & Lee, 1996).

RACIAL VARIATION

Brain Size

Modern studies confirm Darwin's view that races vary in average brain size—but not to the benefit of Caucasians. The racial gradient in decreasing mean brain size is now established as running from East Asians to Europeans to Africans. This three-way gradient has been found independently using three separate procedures: wet brain weight at autopsy, volume of empty skulls using filler, and volume estimated from external head sizes. The results from all these studies converge on the conclusion that the brains of East Asians and their descendants average about 17 cm³ (1 in³) larger than those of Europeans and their descendants, whose brains average about 80 cm³ (5 in³) larger than those of Africans and their descendants (see Rushton & Ankney, 1996, for review).

Because the modern data on racial variation in brain size are not as well known as they should be, I will summarize a few of the relevant studies. Using brain mass at autopsy, Ho, Roessmann, Straumfjord, and Monroe (1980) found that 811 European Americans averaged a brain weight of 1,323 grams, whereas 450 African Americans averaged 1,223 grams. Using endocranial volume, Beals, Smith, and Dudd (1984) found that East Asians averaged 1,415 cm³, Europeans averaged 1,362 cm³, and Africans 1,268 cm³. Using external head measurements from a stratified random sample of 6,325 U.S. Army personnel, Rushton (1992b) found that Asian Americans, European Americans, and African Americans averaged 1,416, 1,380, and 1,359 cm³, respectively. Using cranial measurements from tens of thousands of men and women aged 25–45 collated by the International Labour Office from around the world, Rushton (1994) found that Asians, Europeans, and Africans averaged 1,308, 1,297, and 1,241 cm³, respectively. Finally, an MRI study found that people of African and Caribbean background averaged a smaller brain volume than did those of European background (Harvey, Persaud, Ren, Baker, & Murray, 1994).

Racial differences in brain size show up early in life. Data from the National Collaborative Perinatal Project on 53,000 children show that Asian children averaged a larger head perimeter at birth than did white children, who averaged

a larger head perimeter at birth than did black children. By age seven, the Asian children averaged highest in IQ scores, largest in head size, but smallest in body size; the black children averaged lowest in IQ, smallest in head size, but largest in body size; and the white children were intermediate on all three measures. In all three groups, head perimeter correlated with IQ (Broman, Nichols, Shaughnessy, and Kennedy, 1987; Rushton, 1997a).

IQ TEST SCORES

Paralleling the average differences in brain size are average differences in IQ. The race-IQ debate became international in scope when research demonstrated that East Asians average higher on tests of mental ability than do whites, whereas Africans and Caribbeans average lower (Lynn, 1982; Vernon, 1982). East Asians, measured in North America and in Pacific Rim countries, typically average IQs in the range of 101 to 111. Caucasoid populations in North America, Europe, and Australasia typically have average IQs from 85 to 115 with an overall mean of 100. African populations living south of the Sahara, in North America, in the Caribbean, and in Britain typically have mean IQs from 70 to 90 (Lynn, 1991, 1997).

Speed of decision making (reaction time) in 9- to 12-year-olds shows the same three-way racial pattern. In this task, children are asked to decide which of several lights stand out from others and move their preferred hand to press the corresponding button to turn off the light. All children can perform the task in less than one second, but higher-IQ children perform faster. Asian children from Hong Kong and Japan were, on average, faster than European children from Britain and Ireland, who in turn were faster than black children from South Africa (Lynn, 1991). This same three-way pattern of racial differences was independently replicated in a study of California school children using the same and similar elementary cognitive tasks (Jensen & Whang, 1993, 1994).

OTHER TRAITS

As shown in table 13.2, the East Asian-white-black racial matrix occurs on a surprisingly wide range of dimensions. For example, international police statistics from INTERPOL yearbooks averaged over several years show rates of murder, rape, and serious assault to be three times higher in African and Caribbean countries than in Pacific Rim countries, again with European countries intermediate (Rushton, 1990, 1995a). Similarly, the matrifocal family pattern disproportionately found among black Americans is also found in the Caribbean as well as in south-of-Sahara Africa (Draper, 1989). Whatever the causes of racial differences in crime and family structure turn out to be, they obviously apply well beyond American particulars.

Worldwide surveys show higher rates of sexual activity among blacks than among whites and especially among Asians. Racial differences in sexual activity

Table 13.2
Relative Ranking on Diverse Variables

Variable	Asians	Whites	Blacks
Brain size			
Autopsy data (cm ³ equivalents)	1,351	1,356	1,223
Endocranial volume (cm ³)	1,415	1,362	1,268
External head measure (cm ³)	1,356	1,329	1,294
Cortical neurons (billions)	13.767	13.665	13.185
Intelligence			
IQ test scores	106	100	85
Decision times	Faster	Intermediate	Slower
Cultural achievements	Higher	Higher	Lower
Maturation rate			
Gestation time	?	Intermediate	Earlier
Skeletal development	Later	Intermediate	Earlier
Motor development	Later	Intermediate	Earlier
Dental development	Later	Intermediate	Earlier
Age of first intercourse	Later	Intermediate	Earlier
Age of first pregnancy	Later	Intermediate	Earlier
Life-span	Longer	Intermediate	Shorter
Personality			
Activity	Lower	Intermediate	Higher
Aggressiveness	Lower	Intermediate	Higher
Cautiousness	Higher	Intermediate	Lower
Dominance	Lower	Intermediate	Higher
Impulsivity	Lower	Intermediate	Higher
Self-concept	Lower	Intermediate	Higher
Sociability	Lower	Intermediate	Higher
Social organization			
Marital stability	Higher	Intermediate	Lower
Law abidingness	Higher	Intermediate	Lower
Mental health	Higher	Intermediate	Lower
Administrative capacity	Higher	Higher	Lower
Productive effort			
Two-egg twinning (per 1000 births)	4	8	16
Hormone levels	Lower	Intermediate	Higher
Secondary sex characteristics	Smaller	Intermediate	Larger
Intercourse frequencies	Lower	Intermediate	Higher
Permissive attitudes	Lower	Intermediate	Higher
Sexually transmitted diseases	Lower	Intermediate	Higher

Source: J. P. Rushton, *Race, evolution, and behavior* (New Brunswick, NJ: Transaction, 1995b), p. 5. Copyright 1995 by Transaction Publishers. Reprinted by permission.

have consequences, including elevated rates of AIDS and HIV-infection. As of January 1, 1998, statistics from the World Health Organization and Centers for Disease Control and Prevention revealed that 8 out of every 100 sub-Saharan Africans, 2 out of every 100 black Caribbeans, and 2 out of every 100 black Americans were living with HIV. The comparable figure for whites (either American or European) was less than 1 per 1,000; for East Asians, the figure was less than 1 per 10,000.

Controlling for IQ and social class substantially reduces but does not eliminate racial differences in rates of incarceration, illegitimate birthing, and sexual behavior (Herrnstein & Murray, 1994; cf. Gordon, 1997). More than IQ must be involved. One neurohormonal contributor to crime and sexual behavior is testosterone. Studies show 10 percent more testosterone in black college students and military veterans than in their white counterparts (Ellis & Nyborg, 1992), and more in whites than in East Asians. Sex hormone levels may also explain differential dizygotic twinning rates, which are less than 4 per 1,000 births among East Asians, 8 among Europeans, and 16 or greater among Africans. DZ twinning is known to be heritable through the race of the mother regardless of the race of the father, as found in East Asian/European crosses in Hawaii and European/African crosses in Brazil. (There is, however, no ethnic difference in MZ twinning rates.)

SELECTION AND THE EVOLUTION OF RACES

An evolutionary explanation for why Asians average the largest brains and the highest IQ is especially interesting because there has been a threefold increase in the relative size of the hominid brain over the last 3 million years. From an adaptationist perspective, unless large brains substantially contributed to evolutionary fitness (defined as increased survival of genes through successive generations), they simply could not have evolved. Metabolically, the brain is a very expensive organ. It uses about 5 percent of basal metabolic rate in rats, cats, and dogs, about 10 percent in rhesus monkeys and other primates, and about 20 percent in humans (Armstrong, 1990). Across species, large brains are related to other life history traits, such as longer gestation, slower rate of maturation, higher rate of offspring survival, lower reproductive output, and longer lifespan (Pagel & Harvey, 1988; Hofman, 1993).

The Out-of-Africa theory holds that *Homo sapiens* arose in Africa 200,000 years ago, expanded beyond Africa following an African/non-African split about 110,000 years ago, and then migrated east after a European/East Asian split about 40,000 years ago (Stringer & Andrews, 1988; Stringer & McKie, 1996). My extension of that theory (Rushton, 1995b) argues that since evolutionary selection pressures were different in the hot savanna where Africans evolved than in the cold Arctic where Mongoloids evolved, these ecological differences had not only morphological but also behavioral effects. The farther north the populations migrated "Out of Africa," the more they encountered the cogni-

tively demanding problems of gathering and storing food, gaining shelter, making clothes, and raising children during prolonged winters. As these populations evolved into present-day Europeans and East Asians, they did so by shifting toward the *K* end of the *r-K* dimension of reproductive strategies. That is, they underwent selective pressure for larger brains, slower rates of maturation, and lower levels of sex hormone with concomitant reductions in sexual potency and aggression and increases in family stability and longevity.

Why do so many variables correlate in so comprehensive a fashion? Why do East Asians average the largest brains and the lowest twinning rates, Africans the smallest brains and the highest twinning rate, and Europeans intermediate in both? The explanation I propose lies in *r-K* life history theory. Following E. O. Wilson (1975), a life history is a genetically organized suite of characters that evolved so as to allocate energy to survival, growth, and reproduction. Among *r*-strategies the emphasis is on egg production, and among *K*-strategies, parental care. As Johanson and Edey (1981, p. 236) succinctly summarized, quoting Owen Lovejoy: "More brains, fewer eggs, more '*K*'."

HERITABILITY OF RACE DIFFERENCES

But is there any evidence to support my contention that the evolutionary scenario sketched above has produced genetic differences among the races? There is. Research has found that racial differences are more pronounced on subtests that are highly heritable than they are on less heritable IQ tests. This clearly supports the genetic hypothesis. So, too, do data showing that regression to the mean is greater for black children who have high IQ parents and siblings and less for black children who have low IQ parents and siblings than it is for their respective white counterparts.

Other supporting evidence comes from transracial adoption studies. Korean and Vietnamese children adopted into white American and white Belgian homes were examined by Clark and Hanisee (1982), Frydman and Lynn (1989), and Winick, Meyer, and Harris (1975). Although, prior to adoption, many had been hospitalized for malnutrition, they went on to develop IQs ten or more points higher than their adoptive national norms.

By contrast, black and mixed-race (black-white) children adopted into white middle-class families typically perform at a lower level than similarly adopted white children. In the well-known Minnesota Transracial Adoption Study, by age 17, adopted children with two white biological parents had an average IQ of 106, adopted children with one black and one white biological parent averaged an IQ of 99, and adopted children with two black biological parents had an average IQ of 89 (Weinberg, Scarr, & Waldman, 1992). It is sobering to realize how little the evolutionary perspective has taken hold in the social sciences when we consider that while they corroborate Francis Galton's observations made over 130 years ago (as mentioned earlier), the results of the

Minnesota Transracial Adoption Study are treated as highly controversial (when they are not simply ignored).

GENETIC SIMILARITY THEORY AND ETHNIC NEPOTISM

Even postulating an evolutionary basis for some *universal* traits has been anathema to the political left which fears that doing so may seem to justify social policies of exclusion. Ethnic nationalism, for example, is typically held to be an entirely cultural phenomenon, remediable through education and other intervention techniques. In "civilized" societies, notions of ethnic identity are considered archaic and "reactionary" (unless practiced by groups historically discriminated against, in which case they may be considered justifiable and even "liberationist"). Yet, ethnopolitical warfare, because it is a means by which genes can be replicated more efficiently, can best be understood within the evolutionary perspective.

Germane to this discussion is Genetic Similarity Theory and its implications for social assortment and ethnic nepotism (Rushton, 1989). Briefly, I have offered a new theory and presented empirical evidence that social identity, and especially ethnic identity, are constructed on the basis of genetic similarity in order to direct altruism toward those carrying similar genes (extended kin), thereby increasing their ability to replicate. From this perspective, xenophobia and genocide are seen as the "dark side" of altruism.

In-group-amity and out-group-enmity, group selection, and group replacement were put forth in general terms by nineteenth-century evolutionists such as Darwin, Spencer, and W. Graham Sumner. However, such early attempts fell very much out of favor with Marxist, sociological, behaviorist, and psychodynamic approaches. Recent theoretical and empirical advances and mathematical models have led to a reconsideration of these processes (see also Wilson & Sober, 1994).

THE MORALISTIC FALLACY AND BEHAVIORAL CREATIONISM

Although many high-profile members of evolutionary societies are notable for continuing to do battle against Christian fundamentalists and their creationist crusade (an argument some might think was settled in the nineteenth century), these same individuals are notably quiet when it comes to combating left-wing ideology and what anthropologist Vincent Sarich (1982, 1995) has called "behavioral creationism." The political left, I contend, poses a more serious and immediate threat to the advance of evolutionary science than does religious fundamentalism because fundamentalism has no clout in research universities whatsoever. The chilling effect of self-imposed censorship, euphemistically referred to as "heightened sensitivity," comes from within our own membership, our own academic institutions, and indeed even our own minds.

The deliberate withholding of evidence has become all too characteristic of

evolutionary scientists when writing about race. Three highly praised recent books exemplify this trend: Gould's (1996) "revised and expanded edition" of *The Mismeasure of Man*, Diamond's (1997) *Guns, Germs, and Steel*, and Stringer and McKie's (1996) *African Exodus*. (I have reviewed the first two of these in detail—Rushton, 1997b; 1999).

Gould is the most well known of these three. In his 1981 edition of *Mismeasure*, he charged nineteenth-century scientists with "juggling" and "finagling" brain-size data in order to place Northern Europeans at the apex of civilization. Implausibly, he argued that Paul Broca, Francis Galton, and Samuel George Morton all "finagled" in the *same* direction and by *similar* magnitudes using *different* methods. Gould asks us to believe that Broca "leaned" on his autopsy scales when measuring wet brains by just enough to produce the same differences that Morton caused by "overpacking" empty skulls and that Galton caused with his "extra loose" grip on calipers while measuring heads!

Yet even before *Mismeasure*'s first edition (1981), new research was confirming the work of these nineteenth-century pioneers. Gould neglected to mention Van Valen's (1974) review which established a positive correlation between brain size and intelligence. As reviewed earlier in this chapter, the single most devastating development for Gould is the latest research on brain size. Was he asleep throughout the 1990s—called, with good reason, "The Decade of the Brain"?

Jared Diamond, another well-known evolutionary biologist and writer for *Discover* magazine, also joined the debate over racial differences in IQ. In a few *ex cathedra* pronouncements, Diamond branded the genetic argument "racist" (pp. 19–22), declared Herrnstein and Murray's (1994) *The Bell Curve* "notorious" (p. 431), and gave away his game when he pontificated: "The objection to such racist explanations is not just that they are loathsome but also that they are wrong" (p. 19). He summarizes his solution to one of philosophy and social science's most enduring questions in one credal sentence: "History followed different courses for different peoples because of differences among people's environments, not because of biological differences among peoples themselves" (p. 25).

Diamond's thesis is that the people of the Eurasian continent were environmentally, rather than biologically, advantaged. They had the good fortune to have lived in centrally located homelands that were oriented along an east-west axis, thereby allowing ready diffusion of their abundant supply of domesticable animals, plants, and cultural innovations. The north-south axis of Africa and of the Americas inhibited diffusion due to severe changes in climate. For example, the tropical jungle of Central America effectively stopped both the southward migration of domestic corn from Mexico and the northward migration of the domestic llama from Peru. Thus, the agriculturally wealthy Eurasians had a long head start in developing a surplus population with a division of labor that enabled civilization to arise.

It is sad to see an evolutionary biologist like Diamond failing to inform his

readers that it is different environments that cause, via natural selection, biological differences among populations. Each of the Eurasian developments he describes created positive feedback loops, thereby selecting for increased intelligence and various personality traits (e.g., altruism, rule-following, ability to tolerate greater levels of population density). Subsequently, internecine tribal and ethnic warfare was a potent force in natural selection of human groups. Diamond omits to discuss how intergroup competition over scarce resources influences the human genotype, including why hominid brain size increased threefold over the last 3 million years.

A final example of political correctness by an important scholar who probably knew better is *African Exodus* by paleontologist Christopher Stringer at the British Museum of Natural History (written in collaboration with journalist Robin McKie). The parts of the book that review human origins are competent and very readable. Unfortunately, major errors appear in the book when it descends to the politically obligatory trashing of both *The Bell Curve* and my own work. In my case, instead of taking time to read, cite, and critique my 1995 book intelligently, the authors rely mainly on a 1994 account of it in the tabloid magazine *Rolling Stone*!

The basic political argument of *African Exodus* is as follows: "In any case, the story of our African Exodus makes it unlikely that there are significant structural or functional differences between the brains of the world's various peoples" (181). The logic here is especially odd given that other parts of the book present a fascinating discussion of how populations vary in jaw size and in number of teeth. For example, page 215 states: "Among Europeans, for example, it has been found that up to 15 percent of people have at least two wisdom teeth missing . . . while in east Asia, the figure can be as much as 30 percent in some areas." As an example of evolutionary pressure, the book describes how before modern medicine, impacted wisdom teeth often became infected and led to death.

The authors appear to find it plausible for evolution to act through differential death rates resulting from differences in the number of wisdom teeth and yet find it implausible that death rates could vary in different regions because of differential intelligence as an adaptation to extreme cold. While Stringer and McKie describe how noses and skin color have been shaped in different regions, they deny that there are any cognitive differences and they withhold from readers the modern literature on brain size and IQ. Perhaps least forthright in this regard is the citation (p. 177) of Beals, Smith, and Dodd's (1984) study of worldwide variation in cranial size (which I cited earlier) and their attribution of racial differences only to "climate," as though climate is not a likely potent source of natural selection for intelligence.

THE PERVASIVENESS OF THE EGALITARIAN DOGMA

In the United States the First Amendment protects the right of every citizen to free speech, and there is not much the government can do to silence unpopular

ideas. In Canada and many Western European countries, however, "anti-hate" laws exist, as well as laws against spreading what is termed "false news." Governments can and do prohibit speech on topics they consider obnoxious. In Denmark, a woman wrote a letter to a newspaper calling national domestic partner laws "ungodly" and homosexuality "the ugliest kind of adultery." She and the editor who published her letter were targeted for prosecution. In Great Britain, the Race Relations Act forbids speech that expresses racial hatred, "not only when it is likely to lead to violence, but generally, on the grounds that members of minority races should be protected from racial insults."

In his book, *Kindly Inquisitors*, Rauch (1992) showed that even in the United States, despite the protections supposedly guaranteed by the First Amendment, nongovernmental institutions, including colleges and universities, have set up "anti-harassment" rules prohibiting, and establishing punishments for, "speech or other expression" that is intended to "insult or stigmatize an individual or a small number of individuals on the basis of their sex, race, color, handicap, religion, sexual orientation or national and ethnic origin." This decree, taken from Stanford's policy adopted in 1990, is more or less representative. One case at the University of Michigan became well known because it led a federal court to strike down the rule in question. A student claimed, in a classroom discussion, that he thought homosexuality was a disease treatable with therapy. He was formally disciplined by the university for violating the school's policy and victimizing people on the basis of sexual orientation.

A growing number of cases of intimidation and censorship are coming to light, especially of psychologists studying individual and group variation (see Hunt, 1999; Pearson, 1997). Noteworthy accounts have been provided by Arthur Jensen (1973) in the Preface to his *Educability and Group Differences*, by Richard Herrnstein (1973) in the Preface to his *IQ in the Meritocracy*, and by Hans Eysenck (1997) in his Introduction to Roger Pearson's *Race, Intelligence and Bias in Academe* and his (1997) autobiography *Rebel with a Cause*. Readers might also see Glayde Whitney's (1995) account of the reaction of his colleagues to his presidential address to the Behavior Genetics Association. Although the editors have persuaded me to delete much of my own personal account, interested readers can consult Hunt (1999), Pearson (1997), and Rushton (1998).

My book *Race, Evolution, and Behavior* was published by Transaction Publishers in 1995, at the same time as Herrnstein and Murray's (1994) *The Bell Curve*, and was soon caught up in that debate. Both books were reviewed in the *New York Times Book Review* (October 16, 1994) by Malcolm Browne, the *New York Times* science writer, along with a third book, Seymour Itzkoff's (1994) *The Decline of Intelligence in America*. Browne concluded his review with the statement that "the government or society that persists in sweeping this topic under the rug will do so at its peril."

Sweeping the topic under the carpet, however, is exactly what was attempted. One lurid article screaming "Professors of HATE" (in five-inch letters!) appeared in *Rolling Stone* magazine (October 20, 1994). Taking up the entire next page was a photograph of my face, hideously darkened, twisted into a ghoulish

image, and superimposed on a Gothic university tower. In another long propaganda piece entitled "The Mentality Bunker" which appeared in *Gentleman's Quarterly* (November 1994), I was misrepresented as being an outmoded eugenicist and pseudoscientific racist. A photograph of me was published in brown tint reminiscent of vintage photos from the Hitler era.

It is difficult to disagree with Charles Murray's (1996, p. 575) conclusion in his analysis of the aftermath to *The Bell Curve* that in regard to heritable variation and race, science has "become self-censored and riddled with taboos—in a word, corrupt." I find the pervasiveness of the egalitarian orthodoxy in high places particularly worrying. In 1992, then editor-in-chief of *Nature*, John Maddox, attacked my work in a full-page lead editorial. Maddox likened the possibility of finding significant group differences in brain size to contradicting accepted views of an ellipsoid earth, continental drift, and relativity theory.

Another of the world's prestigious journals, *Science*, featured special issues documenting the underrepresentation of minority scientists (November 13, 1992, November 12, 1993, March 29, 1996). Unflinching statistics were accompanied by muddled analysis. First, the word *minority* is misleading. In truth, only blacks, Hispanics, and American Indians are underrepresented in science: Several other minorities are overrepresented. Adopting the criterion of being listed in *American Men and Women of Science* and using Weyl's (1989) ethnic classification of surnames, we find that Chinese are overrepresented relative to their numbers in the population by 620 percent, Japanese by 351 percent, and Jews by 424 percent. These figures cast doubt on prejudice as an explanation and, instead, suggest considering factors shown to be characteristic of the various groups.

CONCLUSION

The gene-based evolutionary models I have proposed to explain ethnocentrism and racial group differences may provide a catalyst for understanding individual differences and human nature. Such gene-based hypotheses, however, conflict with current orthodoxy in the social sciences which holds that behavioral differences are almost exclusively the result of social inequalities. Less well recognized is that they also conflict with current orthodoxy in evolutionary psychology which holds that there is a "universal human nature" (Tooby & Cosmides, 1990, p. 18). Michael Bailey searched the Medline database for articles published in the last decade that referenced the keywords—*evolution*, *genetics*, *behavior*, and *human*—and the combination of those words. Although he found that each word was referenced by several thousand articles, he found only one article that referenced all four (Bailey, 1997, p. 82). The *r-K* life-history theory that I have proposed unites the evolutionary psychology tradition begun by Darwin with the behavior genetic tradition begun by Galton. Building on the contemporary synthesis of E. O. Wilson (1975), it accounts for individual as well as racial variation by postulating that evolution selected a genetically

organized suite of characters to optimize the allocation of metabolic energy to survival, growth, and reproduction.

Understanding the problems of the next millennium will require knowledge from biology as much as from the social and physical sciences. Effective public policies must be based on sound scientific conclusions rather than popular assumptions or misconceptions. As the world is made smaller by the global high-tech economy, competition and inequality among individuals and between groups might well increase rather than decrease.

Let us return to the problem we face—political correctness. Its central thesis is the environmental determinism of all important human traits. It stems from Marxism, and at worst it is a Marxist-Lysenkoist denial of genetics and a belief that social and economic oppression is at the root of all major individual and group differences (Pearson, 1997; Whitney, 1995). The Marxist invasion of liberal political sentiment has been so extensive that many of us think that way without realizing it. We censor ourselves lest we even dare to think the forbidden thoughts.

In an invited paper to the British Association for the Advancement of Science, Hans Eysenck wrote the encroachments on scholarship of what is now known as “political correctness”:

It used to be taken for granted that it was not only ethically *right* for scientists to make public their discoveries; it was regarded as their *duty* to do so. Secrecy, the withholding of information, and the refusal to communicate knowledge were rightly regarded as cardinal sins against the scientific ethos. This is true no more. In recent years it has been argued, more and more vociferously, that scientists should have regard for the social consequences of their discoveries, and of their pronouncements; if these consequences are undesirable, the research in the area involved should be terminated, and the results already achieved should not be publicized. The area which has seen most of this kind of argumentation is of course that concerned with the inheritance of intelligence, and with racial differences in ability. (Eysenck, 1975, p. 1, emphasis in original)

Richard Lynn (1995) noted that many politically left-of-center scientists are currently in the same position as Christians were after the publication of *The Origin of Species*. He proposes that liberals do now what honest, intelligent Christians did then and still do today. Bite the bullet, and jettison those aspects of their world view (like egalitarianism) that are incompatible with the science of natural selection. “Political correctness” must be discarded if evolutionary theory is to achieve its full promise to become the unifying framework for the human sciences.

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