



## Resolute ignorance on race and Rushton

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### ABSTRACT

I review Rushton's research on the evolutionary divergence of the three major human lineages. His life-history theory predicts, and his multiple analyses document, a consistent three-way patterning of mean differences among blacks, whites, and East Asians on coevolved sets of morphological, physiological, developmental, psychological, and behavioral traits. I then analyze a typical example of how critics evaluate his work, including the rate at which they cast his scientific hypotheses, methods and conclusions in politically charged language. The set of articles in question, although authored by well-known academics and appearing in a major, peer-reviewed journal, illustrate how mob science works to "discredit" valid research and enforce collective ignorance about entire bodies of evidence. Rushton is a scholar and gentleman but it appears that his critics often act like neither.

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### 1. Introduction

Philippe (Phil) Rushton has contributed important works to evolutionary psychology, intelligence, and personality psychology. I focus here on his work receiving the most attention. That is his life history theory of how the major races, or geographic lineages, evolved in somewhat different directions as humans spread out of Africa about 50–100 kya (Rushton, 1995). He has documented a large suite of morphological, physiological, developmental, psychological, and behavioral differences among these groups, whose most recent common ancestors are from Africa, Europe and East Asia. These various traits cohere evolutionarily and are consistent with his life history explanation of the wide array of mean group differences that persist over generations.

I first assess Rushton's research contributions. Then I analyze a typical example of the scornful commentary on the man and his work—a target article and eight comments published together in a major, peer-reviewed journal. I look especially at the nature of evidence and argument used by Rushton and the authors asked to evaluate his work.

### 2. Rushton's approach to human biodiversity

Rushton is proudly of the London School of thought in psychology. It rejects the separation of mind from body and of culture from its genetic substrate, preferring instead to probe their connections. It was an outpost of biological realism during the long reign of behaviorism, whose founder James B. Watson famously assured

us we could form children into anything we wished, not unlike the Soviets' New Man.

Phil Rushton began his career by addressing one of evolutionary psychology's biggest challenges at the time. Altruism seems to require reproductive self-sacrifice, so how could it possibly have evolved? This work garnered him praise and a Guggenheim Fellowship. Humans are not promiscuous altruists, of course, but favor persons genetically similar to themselves. This led him to ponder the dissimilarities that have intrigued writers and travelers throughout human history: Why do the different tribes of man look and live so differently?

During the 1980s Rushton began systematically testing a theory-based life-history explanation. As I describe later, the life-history perspective allowed him to predict a particular pattern of evolved differences among genetic lineages. These predictions are not obvious because they link seemingly unconnected attributes across different realms of human existence, from sexual behavior to social organization. The great sweep yet high specificity of his theory with regard to racial differences would seem to make it easy to disprove if false. To test it, Rushton collected a broad spectrum of primary and secondary data, comprising three categories.

#### 2.1. Evolutionary life history

Life history is a population-level concept. It refers to the coordinated suite of traits and behaviors that characterizes a particular species or subspecies (its shared "life"), which evolved in response to the recurring adaptive challenges its members faced (its evolutionary "history"). The life-history concept highlights an important empirical phenomenon. A species' distinctive traits—such as humans' large brain, slow maturation, and pair bonding—do not evolve independently, one by one, but as a constellation of

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co-evolving traits. In fact, the nexus of traits typifying a species had to have evolved in a coordinated manner in order for the organism to maintain or enhance its evolutionary fitness. For instance, a bigger brain relative to body size consumes more of an organism's fixed energy budget, so humans (those who survived) evolved a smaller gut to afford their metabolically expensive brains, which in turn required a less toxic and more easily digested diet, which the innovation of cooking provides. The physical and logistic constraints of bearing and nurturing big-brained babies likewise generated correlated selection pressures on social behaviors, including male and female mating strategies, pair bonding, parenting, and provisioning.

Rushton relies on the r–K version of life history theory that evolutionary biologists have used to distinguish species throughout the animal kingdom. The r–K version arrays organisms along a continuum of reproductive strategies, from highly r-selected species (many offspring, little parenting) to highly K-selected species (few offspring, much parenting). The assumption is that, given its evolutionary importance, reproductive strategy is likely the axis around which other species-typical traits become organized. The two strategies, r and K, are alternative means to the same end: reproductive fitness, which is to produce more genetic descendants than the Joneses.

Biologists have used r–K theory to compare members of the same species, but Rushton was the first to apply it so systematically to humans. His aim has been to determine whether, and how well, it can explain the many systematic differences observed today among major branches of the human family. He focuses on three. While their labels have changed over time, their origins have not: lineages tracing their ancestry to sub-Saharan Africa (Negroids or blacks), East Asia (Orientals or East Asians), and the lands in-between (Caucasians or whites).

Rushton gathered already-published population data on several dozen traits from institutional sources such as the US military (e.g., head size) and Interpol (international crime rates). His most recent update (Rushton & Jensen, 2005, Table 3; reproduced in Nyborg, this issue) compares the three geographic lineages on 26 measures: intelligence (3 indicators), brain size (2), maturation rate (7), personality (5), reproduction (6), and social organization (3). The set forms a consistent pattern illustrating key insights from life history theory, in turn supporting his application of it to humans.

First, mean population differences are numerous, consistent, and generalized across the body and behavior. Whites are intermediate to blacks and East Asians on virtually all (24) of the 26 measures, whether they be physical or behavioral, speed or size. For instance, physical maturation (skeletal, motor, dental, lifespan) and sexual maturation (age of first intercourse, first pregnancy) are accelerated in blacks relative to whites, and in whites relative to East Asians. Compared with whites, American blacks have larger bodies (reported elsewhere), larger secondary sex characteristics, higher hormone levels, and higher rates of sexual intercourse and two-egg DZ twinning (not MZ twinning)—with the reverse being true for reproductive behavior in East Asians compared with whites. A three-way pattern of mean differences is also seen in personality, with blacks being the most (and East Asians the least) aggressive, impulsive, dominant and sociable, whereas East Asians are the most cautious (and blacks the least) on average. It is also seen in social organization, with East Asians having higher rates of marital stability, law abidingness, and mental health than whites, and whites having higher rates than blacks.

The apparent evolutionary divergence between the three lineages is not just from “the neck down.” East Asians have the largest skulls, largest brains, and most cortical neurons, whereas blacks have the smallest skulls and brains and the fewest cortical neurons, on average. These differences in the physical brain are mirrored by comparable mean group differences in the speed and quality of the

brain's information processing. East Asians have the fastest decision reaction times (measured in milliseconds) on elementary cognitive tasks, which are so simple that virtually everyone can perform them correctly, and they also have the highest average levels of general intelligence (*g*) on validated, unbiased tests of intelligence.

The pattern of cranial vs. sub-cranial group differences illustrates a second insight from life-history theory: evolution imposes tradeoffs. For example, the populations with larger brains have (had to evolve) smaller bodies; and those with slower maturing offspring have (had to evolve) more socially and sexually constrained adults.

Note that none of the aforementioned biological traits is a social marker of race, either singly or collectively, as would be skin color and hair type. Moreover, as Rushton and others have shown, within-race variation in all these characteristics is moderately to highly heritable, so we cannot dismiss the possibility that mean group differences in body and behavior are also somewhat genetically rooted. In fact, these mean differences in “non-racial” traits appear to shift in tandem, as a coordinated set, from one human lineage to another. This implicates a consistent deep influence linked more tightly to distant genetic heritage than to current circumstance. The great variation within racial groups is entirely consistent with genetic divergence, because within-population variation is the grist for evolution. Also consistent is the systematic overlap among groups, because mean differences in genotype will emerge from the same ancestral genotype, slowly but surely, when the groups' adaptive demands diverge and consistently pull selection in somewhat different directions.

Rushton's results reflect a third insight of life history theory: individuals do not evolve, populations do. A population's social organization—its culture—necessarily co-evolves with the distribution of its members' attributes. Humans, for example, are not just an exceptionally brainy primate, but also an especially social one. We have a special penchant for pair bonding (even if serial), living and working in groups, forming networks and coalitions, trading, teaching, gossiping, reading others' minds, and befriending non-kin. Our big-brained, slow-maturing, vulnerable and care-intensive children would not survive without such enduring social networks and bonds of long-term reciprocity.

Rushton's version of life-history theory proposes that reproductive strategies drive (cause) differences in social organization. Although all humans are K-oriented (relatively few offspring with much parenting), his r–K theory posits that the somewhat less K-oriented human populations will tend more strongly toward social relations guided by self-interest, relative physical strength, and a tolerance for interpersonal conflict, with the result that, from a K perspective, they produce cultures with less stable families, less organized institutions, more transgressions of person and property, and therefore higher rates of mental and physical illness. In contrast, more K-oriented lineages produce societies whose members tend to exercise more self-control, social control, and mutual coordination in the pursuit of longer-term shared goals, with the result that such groups will create somewhat better organized, more productive, personally secure and—from an r perspective—more rigid societies that tightly constrain what their members may do. Non-evolutionary explanations have been offered for these differences in social organization but none, to my knowledge, can account for—let alone has predicted—the nexus of physical, mental, and behavioral mean differences that Rushton found—and had predicted.

## 2.2. Forensic anthropology

Rushton has also tested his life-history theory by following hominoids back down their evolutionary tree. Rushton and

Rushton (2004) examined progressive changes in 76 musculo-skeletal traits across seven hominoid populations, listed here by evolutionary age: *Pan troglodytes* (chimpanzee), *Australopithecines*, *Homo habilis*, *Homo erectus*, Africans, Europeans, and East Asians (for humans: Rosenberg et al., 2005). The aim was to test the hypothesis that a cascade of skeletal changes accompanied the evolution of brain size in hominoids, ranging from humans' most distant relative (the chimpanzee, 5 mya) to the youngest human lineage (East Asians). Standard texts on evolutionary anatomy provided data on 76 skeletal traits for the one ape and the three fossil species, and standard forensic anthropology textbooks provided data on 42 traits for the three human populations.

The skeletal data for the seven hominoid groups did, in fact, differentiate them in the same order as did their evolutionary distance from the youngest human lineage (East Asians). Of the 42 traits available for the three racial groups, 38 were measured in absolute terms—14 cranial traits (including cranial capacity), 8 teeth and mandibular traits, 3 neck, 3 pelvic, and 12 upper and lower limb traits. All but one (nasal bone prominence) fit the predicted pattern.

The 6 other traits, measured as body proportions, uniformly did not (e.g., leg length as a % of height, weight of upper limbs as % of body weight). Ratios and percentages of a trait are hard to interpret because they have different measurement properties than do absolute measures of a trait, such as length, area, volume and weight. Nor is it clear that r-K theory makes any predictions for body proportions. If we set the body proportions data aside for now, it appears that the increase in cranial capacity from 380 to 1364 cm<sup>3</sup> across the 7 hominoid groups was accompanied by systematic and pervasive changes across the musculo-skeletal system, including cranial traits (e.g., size and shape of the skull, jaw, teeth, eye sockets, brows, muscle attachments) as well as post-cranial traits (e.g., dimensions, shape and orientation of particular bones, joints, and pelvis). The most general change is that the musculo-skeletal system became less robust as brain size increased. Perhaps there is a non-evolutionary explanation for the progressive and pervasive skeletal differences among blacks, whites, and East Asians that are so well known to forensic investigators, but I am not aware of any plausible ones having been offered.

### 2.3. Patterns of phenotypic and genetic variation in intelligence

If the major human races diverged physically and behaviorally during evolution, their living descendants should differ genetically, on average. Self-identified races are different branches of the human family, as confirmed in the last decade by studies of the Y chromosome, mitochondrial DNA, neutral markers on the 22 pairs of autosomal chromosomes, number of short tandem repeats on various ones, and more. But that is not the issue here. It is whether a highly particular, much documented, mean phenotypic difference among the major human races has a genetic component.

Of all human traits, variation in general intelligence (*g*) is the functionally most important in modern life. The first question that behavior genetics tackled was “how heritable are within-group differences in intelligence?”—the answer: “very.” The next obvious question is “how heritable are the between-group differences in phenotypic intelligence?” It could easily be answered using today's analytical methods, but no scientific discipline will touch it. Most would have to be shut down completely, however, to avoid generating relevant evidence. Traits that are so useful in daily life and so heritable across generations are going to manifest themselves in many predictable ways. Rushton has marshaled relevant such evidence on intelligence to test competing hypotheses about the long-standing mean IQ difference between American blacks and whites: 0% genetic vs. 50–80% genetic.

The latter range of percentages is Jensen's (1998) “default hypothesis,” which is that within-race variation and between-race variation arise from the same sources, whether genetic or environmental. Accordingly, there is no Factor X operating on all members of one race but on no member of another. (Anything that affects some but not all members of a group would show up as a within-group influence.) If within-race IQ variation is 50–80% heritable, as it is in the West, the default hypothesis predicts that between-group differences will be too. This is a readily testable hypothesis, but virtually no one with the necessary data has been willing to test it or lend the data to others who are.

Rushton and Jensen (2005) tackled the question by having their “hereditarian” hypothesis (50–80% genetic) compete head-to-head with the “culture-only” hypothesis (0% genetic) in 10 categories of evidence: the worldwide distribution of test scores, the *g* factor of mental ability, heritability, brain size and its relation to mental ability, transracial adoption, racial admixture, regression to the mean effects, related life-history traits, human origins research, and hypothesized environmental influences on intelligence. This set captures much of the dense nomological network of empirical evidence on psychometric *g*, including its genetic structure, biological and social correlates, behavioral manifestations, joint heritability with brain structure, function, and life outcomes, developmental course, and manipulability by various experimental means, including adoption.

The evidence in at least 7 of the 10 categories is much replicated, often over time, age, sex, race, class, and geography, and therefore provides a firm basis for comparison. The 50–80% genetic hypothesis fits this array of evidence far better than does the culture-only hypothesis (Gottfredson, 2005). Where the two make opposite predictions, the hereditarian predictions are confirmed and the culture-only predictions are contradicted. For instance, achievement differences expand just when the culture-only explanation says they will contract—when resources and opportunity are equalized (Ceci & Papierno, 2005). And, as noted earlier, group differences follow geographic ancestry far more closely than the groups' current location or circumstances. They behave just like evolved, genetically-influenced traits are expected to behave—with great consistency regardless of species-typical variations in non-genetic milieu. The greater explanatory success of the 50–80% genetic hypothesis does not prove it true, but that is better approximates the truth than does its never-plausible 0%-genetic competitor.

## 3. The critics' approach to Rushton and race

In 1989 Rushton summarized his evidence for a black-white-East Asian gradient in life-history traits at the AAAS meeting in San Francisco. There followed a convulsion of excoriation by the scientific establishment, his home institution (University of Western Ontario), and the Canadian government (Rushton, 1998). All launched investigations into his work. He was shunned and isolated by fellow academics, as if having a professionally deadly contagious disease. When he presented his corpus of published evidence in book form—*Race Evolution, and Behavior: A Life History Perspective* (1995)—it was greeted as “inflammatory,” “indecent,” “pseudoscientific,” “racist trash,” and in scatological terms too (Gottfredson, 1996).

### 3.1. High talk and low blows

In a collective exercise in confirmation bias, Rushton's critics spied damning evidence of scientific and moral perfidy wherever they looked. They saw nothing exculpatory, or even ordinary, in his conduct. So, where evolutionary psychology had always concentrated on sexual selection and therefore on mating strate-

gies, sexual behavior, and physical attractiveness to the opposite sex, critics insinuated that Rushton's interest was prurient. Although behavioral geneticists were busy estimating the heritability of intelligence differences within races, Rushton's interest in possible between-race genetic differences betrayed, to them, an archaic racial elitism. And while none denied that the human species' remarkably large brain is largely responsible for its remarkably high intelligence, they said Rushton was resurrecting long-discredited 19th century thinking when he asserted (correctly) that brain size and intelligence are correlated in modern humans.

Rushton answered all published critiques while carefully adhering to the scientific coda his critics often flagrantly violated—logic, weight of evidence, and no aspersions on character. Rushton's dispassionate scientific manner on socially sensitive questions only confirmed for them that he was a heartless ideologue misusing science for pernicious ends. I illustrate this phenomenon of high talk and low blows, as sociologist Robert A. Gordon calls it, with a concrete example. It is a target article (Lieberman, 2001) and associated comments published in *Current Anthropology*. The *Anthropological Review's* 2007 obituary for Lieberman lauded him for having “often challenged racists and racialist views.” It pointed specifically to his 2001 article because it “dissected and ridiculed [Rushton's] views of supposed racial differences in intelligence.”

3.2. Argument from authority, political opinion, and impossible standard of proof

Lieberman opens with a question that itself damns Rushton. A century of anthropological work has invalidated Rushton's claims, so how can he claim to find in it a “racial hierarchy” for intelligence and brain size? The question is thus not whether Rushton is wrong, but why and how he persists in being so wrong. The article's first section (“Changing Hierarchical Worldviews”) justifies the premise, and the second (“Abusing Anthropological Research”) explains the “paradox” of how Rushton and other “scientific racists” could claim to be doing science when they draw evidence from the very fields that disavow racism and the concept of race (p. 74).

To justify his premise, Lieberman describes 19th century research on cranial size and its social context which, he says, was the need by Caucasians to justify their domination and exploitation of other races. He discredits that research and Rushton's own primarily by appealing to authority in 20th century anthropology: Franz Boas's theorizing (no link between culture and genes), official statements on race from the UN and the American Anthropological Association (no biological races, no meaningful innate racial differences), Gould's critiques of research on intelligence, brain size, and heritability (none is valid), and anthropology's “disavowal” of “hierarchical” and “racist” thinking. Lieberman also draws from stock concerns, long-since resolved, about possible methodological flaws in twin research, brain research, behavior genetics, and mental testing. He says nothing about the explosion of research in the 1990s using the Y chromosome and mtDNA to trace the evolution of human lineages as they migrated across the globe. He says nothing about Rushton's many other 3-way results on “reproductive behavior, sex hormones, twinning rate, speed of physical maturation, personality, family stability, law-abidingness, and social organization” (p. 74), except to summarily dismiss them as a faulty “blizzard of data” (p. 78).

Zeroing in on Rushton's IQ, race, and brain size analyses, Lieberman details his own list of 6 major “errors.” Briefly, Rushton “uses ‘race’ despite decades of findings that invalidate it,” his conclusions about racial differences in cranial capacity are “contradicted by evolutionary anthropology,” he did not account for environmental factors that surely influence cranial capacity and intelligence, his measurements tell us nothing because they are confounded or the differences they reveal are trivial in size, he cannot claim to “explain” a vast array of human behaviors because some of his measures and concepts may be faulty, and his “principle of aggregation” (e.g., grouping diverse populations into “races,” averaging results from different studies) is invalid. “Aggregation” is Lieberman's single most frequent complaint of the 6 (38 times in 14 pages), even though it is a well-known principle that averaging non-comparable samples would work against Rushton's finding consistent patterns.

The first two “errors” are, again, appeals to authority. The next two disallow drawing conclusions until an infinite regress of alternatives has been considered, and the last two demand uniformly

**Table 1**  
Terms used to impugn Rushton without rebutting his evidence.

Category	Instances per page		Examples (Italicized items appeared only in Lieberman, boldfaced only in commentaries)
	Lieberman (2001) (12 pages article, 2 of reply)	Associated 6 hostile commentaries (7 pages total)	
<i>Evil ideology</i>			
Hierarchical thinking	4.9	4.4	Essentialism, <b>Eurocentric</b> , <b>Causasoid-centrism</b> , hierarchical or typological thinking (many variations)
Racist thinking	2.8	7.1	Racism ( <b>latent</b> , <b>academic</b> , <b>scientific</b> ), <b>racial ideology</b> , inferiority, <b>racial profiling</b> , <b>xenophobia</b>
Evil people & events	0.7	0.9	<b>Apartheid</b> , colonialism, genocide, <b>Holocaust</b> , <b>Nazi</b> , <i>Jim Crow segregation</i> , <i>slavery</i> , Southerners
Evil politics	1.3	2.6	<b>Disenfranchise</b> , dominate, <b>exclude</b> , exploit, justify (various evils), <b>torture</b> , <b>violence</b>
Destructive results	0.3	1.1	<i>Destruction of social generosity</i> , <b>discriminatory</b> , <b>downtrodden</b> , inequity (& variations), misery
Subtotal	10.0	16.1	
<i>Unacceptable science</i>			
Incompetent	8.4	6.0	Aggregated, confounded, deterministic, erroneous, <b>illogical</b> , lacks (evidence, validity, conceptual and empirical merit), <i>seriously flawed</i> , <b>statistical artifact</b> , <i>substandard</i> , <b>subjective</b> , <b>unsophisticated</b>
Pseudoscientific	2.0	5.7	<b>Absurd</b> , <b>bad biology</b> , biased, <b>contrived</b> , <b>deceptive</b> , <b>diseased</b> , <b>fabricated (races)</b> , fascinated by sexuality of savages, <b>fetishizes the brain</b> , <b>inexcusable anthropology</b> , <i>mischievous speculation</i> , <b>reactionary</b> , <b>same old lies</b> , <b>self-serving</b> , <b>sorry mess</b>
Dangerous	0.4	0.9	<b>Alarming</b> , <b>dangerous</b> , <i>destructive</i> , <i>notorious</i> , <b>odious</b>
Subtotal	10.8	12.6	
Total per page	20.8	28.7	
(N instances)	(291)	(201)	

perfect data and measurement before concluding anything from a body of evidence. All insulate his factual premise (no evolved differences) from disconfirmation by creating five thou-shall-nots that selectively handicap researchers who might disagree. Scientists shall not refer to race except as a social construct; not group people or results by race unless to illustrate environmental effects; not hypothesize evolutionary differences that contradict reigning “antiracist” opinion in anthropology; not infer any genetic differences before ruling out all non-genetic influences; and not draw non-reigning conclusions about patterns of racial differences in a large body of data if any particular datum might be faulty.

Lieberman moves Rushton’s work into the political realm by always labeling his hypotheses and results with political terms. It is “hierarchical” (because it measures ordinal differences on a trait), “racist” (it finds mean racial differences in traits), and a “justification” for “inequities” (it predicts social inequality when those traits matter). Table 1 illustrates this practice by categorizing his terms of derogation. (Data for detailed categories are available from the author.) He uses an average of 21 derogations per page, split evenly between connoting extreme right-wing politics and unacceptable science. Forty percent (8.4 per page) allege error in politically neutral terms (“lacks evidence”), but almost as many render his hypotheses and results politically noxious by relabeling them hierarchical and racist (4.9 and 2.8 times per page).

The lone dissenting commentary, by Henry Harpending, objects to Lieberman repeatedly attributing notions of “inferiority” and “superiority” to Rushton (56 times, not shown), but Lieberman insists that Rushton’s work implies them. He further connotes immoral politics by describing Rushton’s research as “notorious,” “destructive,” and “socially harmful” and situating it within a history of political evils (slavery, genocide, torture, exploitation) and social harm (misery, poverty, inequality).

### 3.3. Mob science

Rushton was invited to submit a comment, as was one anthropologist “well-known [for his] support of racial differences” (p. 90). The other 6 individuals were already on record as hostile to such ideas. They are less restrained than Lieberman, their negative descriptors being more numerous (29 vs. 21 per page) and more extreme (“odious,” “quackery,” “same old lies”). They less often use politically neutral terms to allege scientific incompetence, but are over twice as likely as Lieberman (per page) to associate Rushton with racist thinking, evil politics, pseudoscience, social harm, and imminent danger. Their commentaries vary in emphasis

and personal abuse, as such commentaries usually do: Loring Brace (“inexcusable anthropology”), Fatimah Jackson (“diseased,” “twisted,” “same old misrepresentations”), Jonathan Marks (“modern creationism,” “quackery”), John Relethford (“resurgence of racial classification”), Audrey Smedley (“so-called science”), Verena Stolke (“continuity of racist thought,” “persisting exclusions”), and Fredric Weizmann (“strong claims,” “relationships of minimal importance”).

Taken as a whole, the symposium illustrates what happens when high talk and low blows is practiced collectively: unrestrained mob action to destroy a purportedly vile member of the group, invite a single defender to speak from the sidelines, and allow the target to say a few words which the crowd will ignore or ridicule.

### 3.4. Resolute ignorance

The first rule in science is to consider the totality of evidence; the second is to make alternative hypotheses compete in explaining it. Rushton has done both, but Lieberman and commentators do neither. Table 2 helps illustrate how a hostile crowd can circumvent these rules yet still appear scientific in order to maintain “resolute ignorance” about some stubborn, unwelcome fact, as the late sociologist William Beer dubbed it—in this case mean racial differences in general intelligence.

The table lists the seven common rebuttals, ranging from “intelligence doesn’t exist” to “racial differences are unthinkable.” Most critics accept some of the foundational findings (second column) but seldom the same ones, meaning their “yes-buts” often clash. One may “discredit” the notion of racial gaps in intelligence by first accepting some of the evidence (“Yes, intelligence exists”) but then rejecting the next link in the chain of evidence (“but it can’t be measured fairly”). Another may concede that “Yes, it can be measured,” but reject a different link in the evidentiary chain (“but it isn’t important in real life”), yet both stand arm-in-arm to denounce the evidence. All that matters in mob science is that critics howl together at the target.

Lieberman and fellow critics likewise jab haphazardly at different nodes in Rushton’s network of evidence. All dismiss his hypothesis of evolved racial differences in intelligence on the grounds that races don’t exist. But the evidence does not melt away for being relabeled, ignored, or characterized in nasty terms. Therefore, in “yes-but” fashion, some of the 7 add that intelligence doesn’t exist either; others that it exists but isn’t important, or isn’t as heritable as it seems; yet others contend that the race-IQ gap is

**Table 2**  
“Yes-but” gambits commonly used to ignore evidence on mean racial differences in intelligence (g).

“Yes-but” gambits: “Racial gaps in intelligence are...”	“Yes”—A bedrock finding is conceded	“But”—A false claim is pressed to justify ignoring the bedrock finding	“Because”—Fallacious “evidence” is used to support the false claim. Examples for: Disproved hypotheses; Irrelevant truths; Emotional appeals
1. Nonexistent	Yes, there is a black-white gap in IQ scores	But, there is no such thing as “intelligence” (or g)	Why? Disagreement over its definition (I); Only a cultural (or statistical) artifact (D); Undemocratic (E)
2. Mismeasured	Yes, IQ tests do measure (developed) intelligence	But, tests are culturally biased against blacks	Why? Tests created by whites (I); Require cultural knowledge (I); Ruse to justify discrimination (E)
3. Unimportant	Yes, black-white IQ gap reflects gap in average intelligence	But, it’s trivial or lacks practical importance	Why? Important only when treated as such (D); Narrow academic ability (D); Not a measure of human worth (I, E)
4. Malleable	Yes, intelligence has practical importance	But, intelligence is malleable	Why? Brains, skills, & knowledge change with age & experience (I); Must not “give up” on less able persons (E)
5. Environmental	Yes, differences in intelligence are stubborn (resistant to intervention)	But, intelligence is not genetically determined	Why? Abilities not “fixed” (I); Genes & environments interact (I); Differences explained by social advantage (D)
6. Disproved	Yes, IQ differences within a race are quite heritable	But, the average differences between races have been proved not to be genetic	Why? There is no gene for race (I); “Race” is a social not biological phenomenon (D); Racists are hereditarian (E)
7. Unthinkable	Yes, a 50–80% genetic black-white IQ gap fits the evidence	But, we must not let anyone suggest the gap is partly genetic	Why? Dangerous if hypothesis is false (E); Even more dangerous if true (E); Hitler thought the gaps genetic (E)

trivial, or will be washed away by the Flynn Effect, or that Gould discredited the whole business of measuring intelligence and brain size. They reunite again in suggesting that no credible scientist could possibly agree with Rushton. Yet it is Gould's work on cranial capacity, not Rushton's, that we now learn was fudged and falsified (Lewis et al., 2011)—just as Rushton said it was.

## References

- Ceci, S. J., & Papierno, P. B. (2005). The rhetoric and reality of gap closing—when the “have-nots” gain but the “haves” gain even more. *American Psychologist*, *60*, 149–160.
- Gottfredson, L. S. (1996). Review of *Race, evolution, and behavior: A life history perspective*, by J.P. Rushton. *Politics and the Life Sciences*, *15*, 141–143.
- Gottfredson, L. S. (2005). What if the hereditarian hypothesis is true? *Psychology, Public Policy, and Law*, *11*, 311–319.
- Jensen, A. R. (1998). *The g factor*. Westport, CT: Praeger.
- Lewis, J. E., DeGusta, D., Meyer, M. R., Monge, J. M., Mann, A. E., & Holloway, R. (2011). The mismeasure of science. Stephen Jay Gould versus Samuel George Morton on skulls and bias. *PLoS Biology*, *9*(6), e1001071.
- Lieberman, L. (2001). How “Caucasoids” got such big crania and why they shrank: From Morton to Rushton. *Current Anthropology*, *42*(1), 69–80.
- Rosenberg, N. A., Mahajan, S., Ramachandran, S., Zhao, C., Pritchard, J. K., & Feldman, M. W. (2005). Clines, clusters, and the effect of study design on the inference of human population structure. *PLoS Genetics*, *1*(6), e70.
- Rushton, J. P. (1998). The new enemies of evolutionary science. *Liberty*, *11*(4), 31–35.
- Rushton, J. P. (1995). *Race, evolution, and behavior: A life history perspective*. New Brunswick, NJ: Transaction Publishers.
- Rushton, J. P., & Jensen, A. R. (2005). Thirty years of research on race differences in cognitive ability. *Psychology, Public Policy, and Law*, *11*(2), 235–294.
- Rushton, J. P., & Rushton, E. W. (2004). Progressive changes in brain size and musculo-skeletal traits in seven hominoid populations. *Human Evolution*, *19*(3), 173–196.