THERE ARE NO PUBLIC-POLICY IMPLICATIONS A Reply to Rushton and Jensen (2005)

Robert J. Sternberg Yale University

J. P. Rushton and A. R. Jensen (2005) purport to show public-policy implications arising from their analysis of alleged genetic bases for group mean differences in IQ. This article argues that none of these implications in fact follow from any of the data they present. The risk in work such as this is that public-policy implications may come to be ideologically driven rather than data driven, and to drive the research rather than be driven by the data.

The quest to show that one socially defined racial, ethnic, or other group is inferior to another in some important way, such that "the public must accept the pragmatic reality that some groups will be overrepresented and other groups underrepresented in various socially valued outcomes" (Rushton & Jensen, 2005, p. 283), has what I believe to be a long, sad history. Since ancient times, cynical political, religious, and other leaders have used such arguments to justify discriminatory ideological positions. Does science want to provide them the ammunition?

Scientists might argue that their work is value free and that they are not responsible for the repugnant or even questionable values or actions of opportunistic leaders. Rushton and Jensen (2005) seem to believe, as have others, that they do perform a kind of value-free science and that they merely respect the truth. However, using tests and scoring them in itself represents a value judgment: Taking a test means different things for diverse groups, and the backgrounds of varied groups who take these tests are different (Greenfield, 1997). Studying so-called races represents a value judgment because race is a social construction, not a biological concept, and Rushton and Jensen's entire article is based on the false premise of race as having meaning other than in their and other people's imaginations (Sternberg, Grigorenko, & Kidd, 2005). Deciding to study group differences represents a value judgment-that the problem is worth studying. Deciding to show that one group is genetically inferior on an index is a value judgment as to what is worth showing. These decisions, among others, indicate that there is no value-free science. Few of us can hear our own accents when we speak—only other people have accents! In the same way, supposedly "value-free science" reflects the values of investigators who cannot see their own values underlying their research.

In our work in Tanzania, for example, we have found that children who do not do well on conventional static cognitive tests do much better when the tests are administered dynamically (Sternberg et al., 2002). Many others have found the same results (see general review of literature in Sternberg & Grigorenko, 2002;

Correspondence concerning this article should be addressed to Robert J. Sternberg, Department of Psychology, Yale University, P.O. Box 208358, New Haven, CT 06520-8358. E-mail: robert.sternberg@yale.edu

STERNBERG

see also Sternberg, 2004). In some cultures, the act of taking a test in isolation from other people is itself an unfamiliar activity (Greenfield, 1997). Indeed, even outside the Mayan cultures that Greenfield has studied, such as in the United States, most significant projects are done collaboratively, not individually. In general, when we use a psychological measuring instrument in assessing people, we are imposing a set of values we often do not realize we are imposing.

Ruston and Jensen (2005) make what I believe to be ambiguous references for example, speaking of biological inequality without defining this term. I also believe they inadvertently create "straw men." These straw men take the form of false dichotomies, such as between the culture-only model and the hereditarian model (as though there is nothing in between), and imaginary oppositions, such as between people who believe in the influence of genetics and people who engage in "denial of any genetic component in human variation." There are probably no such people, at least among serious scientists. What scientist, for example, believes that height or weight is entirely environmental?

What good is research of the kind done by Rushton and Jensen supposed to achieve? Only vaguely cloaked behind their words is the purported demonstration that certain groups are, on average, genetically inferior to other groups, at least in that aspect of intelligence measured by IQ. The articles and books reporting on this research inevitably have the seemingly obligatory final public-policy section, which is somehow supposed to justify, in part, the usefulness of the research. The "Implications for Public Policy" section (Rushton & Jensen, Section 15) that is included in works of this kind (see also Herrnstein & Murray, 1994; Jensen, 1969) seem to have the intention to provide a public-policy rationale for work attempting to show that one group is inferior to another and that not much, if anything, can be done about it. It is therefore worthwhile to examine whether any of the alleged public-policy implications follow from the data. If not, the argument that the research is useful in formulating public policy is impugned.

I believe that, as in similar past works, none of the claims regarding "implications for public policy" are justified. As was true of Herrnstein and Murray (1994) and their predecessors, the science risks being used to promote social engineering unsupported by the data. In my response, because of space restrictions, I limit my response to their public-policy claims.

Rushton and Jensen's (2005) article is based on the equation of IQ with intelligence. Many psychologists question this equation (see essays in Sternberg, 2000), including even those who have designed the most widely used tests of intelligence such as Binet and Wechsler. So in this rejoinder, I talk about IQ, which is the basis for Rushton and Jensen's article, not intelligence in its full sense.

According to Rushton and Jensen (2005),

The research supporting the role of heredity in human behavior implies that the distributional model is more correct than the discrimination model. It explains some of the mean Black–White group difference in IQ-related outcomes in terms of the differential distribution of the genes for general mental ability. For example, IQ is a significant predictor of such socially disadvantageous outcomes as dropping out of high school, being unemployed, being divorced within 5 years of marriage, having an illegitimate child, living in poverty, being on welfare, and incarceration. (Rushton & Jensen, 2005, p. 282)

First, as Rushton and Jensen (2005) realize, these correlations, like heritability coefficients, are all obtained under a given social system. Heritabilities of intelligence differ widely even across social classes (Turkheimer, Haley, Waldron, D'Onofrio, & Gottesman, 2003). Moreover, in a social system that has no welfare (e.g., traditionally, Mexico), IQ is not correlated with going on welfare. In a social system in which the state ensures that no one lives in poverty (e.g., traditionally, Sweden), IQ is not correlated with living in poverty. Is divorce heritable? In a system that does not allow divorce (e.g., traditionally, Chile), IQ is not correlated with divorce within the first 5 years of marriage. And in a system that does not allow discrimination, who knows what the heritability of intelligence would be?

It is very difficult to find such a truly nondiscriminatory system. Built into any correlation is the contextual backdrop in which the two interrelated variables occur. The correlation of IQ with other variables may stay the same, go down, or go up. No one knows. It would be easy for middle- and upper-middle-class majority-group individuals (presumably, such as Rushton and Jensen) to state that, if they were born into poverty, they or others like them would have achieved socially desirable outcomes in life. But is this so? Many individuals-disproportionately, members of certain minority groups and those in developing countries-grow up in miserable circumstances from which there is no ready exit. Their home life may be bad; their schools may be bad; their economic situation may be bad. It is extremely difficult to escape from these environments because they are members of a socially defined lower caste for which the opportunities for advancement are meager. Ogbu (1978), for example, found that displaced members of minority groups who are, or are descended from, forced immigrants tend to underperform compared with members of the same group when the group is in an environmental context in which it was not forced to immigrate. Even when African American students live in affluence, some of their prevailing cultural attitudes may prevent them from achieving at the levels of which they are capable. Such attitudes may affect their ability test scores as well as their achievement test scores, because existing ability tests, including tests of nonverbal abilities, all measure achievement, to a greater or lesser extent.

Not all the correlates of higher IQ are socially desirable, although Rushton and Jensen (2005) only mention the socially desirable ones. To be fair, we probably ought to list selected undesirable correlates of higher IQ: for example, being able to design and fabricate sophisticated bombs, the capacity to successfully manufacture weaponized anthrax and other biological agents, and planning terrorists attacks without getting caught. In these cases, higher IQ may be correlated with socially *devalued* outcomes. Arguably, these outcomes do more social harm than divorce (associated, according to Rushton and Jensen, with low IQ).

As these examples illustrate, a problem with our society is its emphasis on *intelligence* and its corresponding lack of emphasis on *wisdom*. Unfortunately, it is our foolishness that is likely to destroy our society, not our lack of IQ (Sternberg, 1998, 2002).

Second, before we ask about distributions of particular attributes, we need to ask ourselves which attributes we want to study to begin with. IQ is one attribute that, in our society, is correlated with success. In many other societies, IQ probably matters as well, although not to the same extent. In a hunter-gatherer

STERNBERG

society, IQ will still be important, but if a hunter cannot shoot straight, IQ will not bring food to the table. In a warrior society, IQ will still matter, but physical prowess may be equally necessary to stay alive. In a totalitarian society, a high IQ may be the kiss of death. During the reigns of Stalin and Pol Pot, among other such reigns, intellectuals were the first to be shot. In a rapidly changing society, such as modern-day Russia, many high-IQ professors have found their already low pay sinking to even lower levels. Those who are not creatively flexible may find themselves unable to sustain their families. IQ matters, but so do many other qualities. Rushton and Jensen (2005) acknowledge this fact in one sentence, but their sweeping policy generalizations suggest that the acknowledgment does not carry much weight with them.

Third, it is not the case that the "research supporting the role of heredity in human behavior implies that the distributional model is more correct than the discrimination model" (Rushton & Jensen, 2005, p. 282). Their argument incorrectly implies that IQ is the only cause of success. Members of other socially defined racial or ethnic groups might be superior in other attributes correlated with success but still not attain the success of the majority because they find their success blocked by discrimination. Perhaps Rushton and Jensen, like most of us, are not even aware of the extent to which we ourselves discriminate, and would prefer to think that those who do not achieve at high levels fail, not because they are blocked, but because they are incapable of succeeding. This has been the stand of privileged majorities throughout history. And these majorities have routinely provided arguments of various kinds, including so-called scientific ones, to support their positions.

Rushton and Jensen (2005) state that "although the distributional model does not rule out affirmative action or compensation-type initiatives, it does reduce the impact of arguments in their favor based on an exclusive adherence to the discrimination model" (p. 283). This argument may not be correct. Germany, Austria, Switzerland, and other countries have paid compensation to victims of the Holocaust. The compensation had nothing to do with IQ. Some forms of compensation were monetary, others were not (e.g., return of stolen works of art). They recognized a history of discrimination and wrongs unrelated to intelligence. The United States unquestionably has a history of wrongs toward African Americans through slavery and many other forms of discrimination. Should African Americans be paid compensation for slavery? That is a public-policy issue, not a science issue. It has nothing to do with the average IQs of various groups, or anyone else's. Conflating the issue of past wrongs with group-average differences in IQ does not make sense.

Another supposed policy implication is that tests such as the SAT and the General Aptitude Test Battery are about equal in predictive validity for all groups. But Rushton and Jensen (2005) mention and then fail to elaborate on the qualification that this is the case "for all groups who speak the same language and have been schooled in the culture of the test" (p. 283). This is an extremely significant qualification to only mention in passing. First, it simply is not the case that people either are or are not schooled in the culture of the test. People are schooled in this culture in varying degrees. Many inner-city and remote rural schools do not, and in some cases, cannot provide the same schooling in the culture of the test that wealthy suburban or urban schools can provide. Second, in

many countries, children are only minimally schooled in the culture of the test (Sternberg et al., 2002). In other societies, they are schooled slightly more in the culture of the test but, for economic or social reasons, need to devote most of their attention to nonschool matters (Sternberg et al., 2001). In some societies, people have conceptions of intelligence that do not particularly value as intelligent what the tests measure (Grigorenko et al., 2001). Yet in others, people are often ill from disease or malnutrition much of the time and find it difficult to absorb the full benefit of the schooling they receive.

The assumption should not be made that all children speak the same language even in countries such as the United States. Many children attend schools where students do not all speak the same language. Within a given school, there may be scores of native languages, as is routine in schools in large states such as California. The point, quite simply, is that what appears in Rushton and Jensen's (2005) article to be a minor qualification is actually a significant one.

If one examines studies of conventional ability tests, they generally are not biased in a narrow statistical sense. However, the same environmental factors that depress criterion-test scores also lower ability-test scores, as ability tests and achievement tests all measure achievement to some degree. Thus the correlation reflects, in part, that school-based skills predict school-based skills. Changing the environment might change the correlations, although of course we cannot know for sure. Thus the tests are not biased, but they fail to reflect what individuals might be capable of under different circumstances.

There is no reason to believe that the failure of what Rushton and Jensen (2005) call "equal opportunity programs to enable all groups in society to perform equally scholastically" (p. 283) is because of "the true nature of individual and group differences, genetics, and evolutionary biology" (p. 283). If height is heritable but modifiable, so is intelligence. It is not clear that any program will fully equalize performance, but programs can raise performance. We, as a society, have not yet determined how most effectively to raise achievement. There are some extraordinarily successful programs, such as those at the University of Maryland, Baltimore County, that do seem to be dramatically raising achievement. Jaime Escalante also apparently had great success. But certainly we are less effective than the natural environment (Mathews, 1989). The Flynn effect (Flynn, 1999) shows that environmental factors can raise IQs. No one, to my knowledge, has claimed that the effect is genetic, and it is unclear how it possibly could be. So it can be done. Nature apparently knows how; we do not know as well, at least, as of yet.

Rushton and Jensen (2005) argue that failure to take ethnicity into account in epidemiological work would be a great mistake. For example, different groups may suffer from different rates of hypertension, prostate cancer, and so forth. This may be true, but it is irrelevant to their arguments regarding the sources of group differences in intelligence. The fact that African Americans have higher rates of hypertension, for example, is not enlightening as to whether African Americans show different IQs from Whites because of genetic factors. So these policy recommendations, like the others, have no clear relation to the alleged scientific argument advanced by their article.

According to Rushton and Jensen (2005), "modern social science has typically . . . promoted the idea that all babies are born more or less equally endowed

STERNBERG

in intelligence and learning ability. It followed therefore that inequalities were the result of social, economic, and political forces" (p. 284). This argument, too, is not correct. Modern social science has *not* taken the view that all babies are born with equal intelligence or learning ability. Are there any psychologists who seriously study intelligence who believe that genetic factors play *no* role in individual differences in intelligence? I doubt it. This is yet another of the many examples of straw men created in their article to foster belief in an untenable position by arguing the alternative. Where there is genuine disagreement in the field is not over whether there are individual differences of genetic origins, but rather whether there are group differences of IQ that are genetic in origin (i.e., of what they believe to be biologically defined racial groups).

Can one seriously believe that there are *not* inequalities that foster differences in outcomes? Children growing up in the slums of India, all of low caste, have almost no chance of ever leaving those slums, regardless of their IQs. Children of rural Appalachia or Watts in Los Angeles, or Harlem in New York, or Togiak in Alaska, all in the United States, have opportunities far reduced compared with those children living, say, in Winnetka, Illinois, Scarsdale, New York, or Palo Alto, California. In current-day Somalia and Liberia, the opportunities are even worse. For some of these children, getting to and from school and through a school day safely, having food on the table to eat, and avoiding the random gunfire or drug wars raging around them may consume many more of their mental resources than getting good grades in school. Were Rushton or Jensen or any of us reading this article to have grown up or lived in these environments, what would have become of us? Would we have the luxury of writing such articles, or would we have to spend our time attending to basic food and safety needs?

Rushton and Jensen (2005) suggest that "organizations such as the [American Psychological Association (APA)] could play a critical role in changing the zeitgeist" (p. 283). The chances of APA or similar organizations adopting any of the policy recommendations in Rushton and Jensen's article seem remote. My experience during my presidency of the APA is that this organization and others like it are devoted to creating, not restricting, opportunities for growth and advancement.

The quality of science is determined not only by the quality of problem solving but also by taste in the selection of problems to solve. Readers will have to decide for themselves whether the problem addressed in Rushton and Jensen's (2005) article represents good taste in the selection of the problems. Would that Rushton and Jensen had devoted their penetrating intellects to other more scientifically and socially productive problems!

References

- Flynn, J. R. (1999). Searching for justice: The discovery of IQ gains over time. *American Psychologist, 54, 5–20.*
- Greenfield, P. M. (1997). You can't take it with you: Why abilities assessments don't cross cultures. *American Psychologist*, 52, 1115–1124.
- Grigorenko, E. L., Geissler, P. W., Prince, R., Okatcha, F., Nokes, C., Kenny, D. A., et al. (2001). The organisation of Luo conceptions of intelligence: A study of implicit theories in a Kenyan village. *International Journal of Behavioral Development*, 25, 367–378.

Herrnstein, R. J., & Murray, C. (1994). The bell curve. New York: Free Press.

- Jensen, A. R. (1969). Intelligence, learning ability and socioeconomic status. *Journal of Special Education*, *3*, 23–35.
- Mathews, J. (1989). Escalante: The best teacher in America. New York: Holt.
- Ogbu, J. U. (1978). *Minority education and caste: The American system in cross-cultural perspective*. San Diego, CA: Academic Press.
- Rushton, J. P., & Jensen, A. R. (2005). Thirty years of research on race differences in cognitive ability. *Psychology, Public Policy, and Law, 11,* 235–294.
- Sternberg, R. J. (1998). A balance theory of wisdom. *Review of General Psychology*, 2, 347–365.
- Sternberg, R. J. (Ed.). (2000). *Handbook of intelligence*. New York: Cambridge University Press.
- Sternberg, R. J. (2002). Smart people are not stupid, but they sure can be foolish: The imbalance theory of foolishness. In R. J. Sternberg (Ed.), Why smart people can be so stupid (pp. 232–242). New Haven, CT: Yale University Press.
- Sternberg, R. J. (2004). Culture and intelligence. American Psychologist, 59, 325–328.
- Sternberg, R. J., & Grigorenko, E. L. (2002). *Dynamic testing*. New York: Cambridge University Press.
- Sternberg, R. J., Grigorenko, E. L., & Kidd, K. K. (2005). Intelligence, race, and genetics. *American Psychologist*, 60, 46–59.
- Sternberg, R. J., Grigorenko, E. L., Ngrosho, D., Tantufuye, E., Mbise, A., Nokes, C., et al. (2002). Assessing intellectual potential in rural Tanzanian school children. *Intelligence*, 30, 141–162.
- Sternberg, R. J., Nokes, K., Geissler, P. W., Prince, R., Okatcha, F., Bundy, D. A., & Grigorenko, E. L. (2001). The relationship between academic and practical intelligence: A case study in Kenya. *Intelligence*, 29, 401–418.
- Turkheimer, E., Haley, A., Waldron, M., D'Onofrio, B., & Gottesman, I. I. (2003). Socioeconomic status modifies heritability of IQ in young children. *Psychological Science*, 6, 623–628.

Instructions to Authors

For Instructions to Authors, please consult the March 2005 issue of the volume or visit www.apa.org/journals/law and click on the "Instructions to authors" link in the Journal Info box on the right.