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however, we must be satisfied with the current volume, which, along with Dr. Kirk's *Conservative Mind*, will prove to be an indispensable aid in our understanding both of conservatism, and of the roots of our political culture. No person interested in the future course of our politics can afford not to own this book and to dip into it regularly.

P. P. Witonski

Hissing The Messenger

THE MISMEASURE OF MAN. By Stephen Jay Gould. (Norton, New York, 1981)

STRAIGHT TALK ABOUT MENTAL TESTS. By Arthur R. Jensen. (The Free Press, New York, 1981)

These two books contrast instructively not only in their treatment of a common topic—the measurement of intelligence—but in their ways of handling a socially sensitive, scientific issue.

Arthur Jensen has conjectured that the disparity between black and white performance on IQ tests is significantly genetic in origin. *Straight Talk* calmly explains the construction of IQ tests and the evidence for this conjecture. Genuinely concerned to inform his reader, Professor Jensen keeps the mathematics to a judicious minimum. He attempts to persuade by standing back and letting the facts do the talking. *Straight Talk* is masterly, timely and courageous.

Then there is *Mismeasure*. Writing in an unscientific New Journalist idiom ("As a paleontologist, I am astounded"), Stephen Jay Gould nudges the reader with an aren't-we-superior tone that presumes all who disagree are buffoons or "racists." He does not argue; he snickers. Nominally a critique of IQ tests, almost half of *Mismeasure* is a pointless attack on craniometry and other long-extinct fads. Much of the rest rings with hollow laughter at intelligence tests constructed before 1920. The author offers no evidence against "hereditarianism" or any alternative explanation of Professor Jensen's data, apparently satisfied that invective is rebuttal enough. His one serious "refutation" of mental testing is a tried-and-false sophism he fails even to state coherently.

Despite the cogency of one case and the non-existence of the other, Professor Gould is the hero of the hour while Professor Jensen is roundly hated. The left can be expected to hiss bearers of inegalitarian news, but Professor Jensen fares as badly on the right. Thomas Sowell dismisses IQ discrepancies as test artifacts, George Gilder calls Professor Jensen a "racist," and William Letwin got off some gratuitous swipes at him in *Policy Review* 19. Meanwhile, Professor Gould is *Discover*'s "Scientist of the Year."

Opponents of IQ tests in general and Professor Gould in particular occupy a series of fall-back positions. Some simply deny there is any such phenomenon as intelligence. This is Professor Gould's official position except when it isn't. Others concede that intelligence is a real human trait, but deny that it can be measured, or measured by extant IQ tests. Others still admit the validity of IQ tests and even the heritability of intelligence, but attribute *black/white* differences wholly to environment. Professor Jensen demolishes these positions *seriatim*, largely ignoring guerrilla efforts to cut off discussion of the topic as immoral.

Everyone admits that "intelligence" describes a feature of human behavior. For all his posturing, even Professor Gould admits this two pages from the end. Gauss was obviously intelligent (a fact Gould tries to evade by calling Gauss an "eminent" mathematician). Anyone who denies that Gauss or Einstein was intelligent is abusing language. Your list of "intelligent" people would doubtless be consistent with mine, and we recognize this quality in such culturally diverse figures as Edison, Maimonides and Confucius. Those great scientists who, allegedly, cannot balance a checkbook are simply uninterested in, not incapable of, such mundane tasks. Roughly speaking, "intelligence" names the ability to learn, or reason abstractly, or solve problems in novel ways. Professor Jensen thinks general intelligence-the "g factor"-is the ability to perform complex mental manipulations. What all these explications capture is the patent difference between thought and information-between brilliant mathematicians who rely on tables of integrals and students who memorize dozens of integrals but cannot grasp calculus.

As Professor Jensen explains in helpful detail, an individual's IQ is measured by comparing his performance on a group of questions with the performance of a random sample of individuals on those questions. Thus, if you answer just those questions that 50% of the standard population answer, your intelligence is average and you get the ordinal IQ number 100. Those few people who answer most of the questions few people can answer have high IQ's. Professor Gould, whose adherence to fact is elastic, writes as if IQ were still computed as the ratio of mental age to chronological age. It isn't.

The best evidence for the culture- and color-fairness of IQ tests is the performance on them of populations not involved in the original selection of questions. Professor Jensen notes that Japanese average 6 points higher than Americans on tests normed on Americans, and Eskimos do as well on the Raven Progressive Matrices as the English population on which they were normed. Moreover, using "Black English" and black test supervisors has no effect on black IQ scores, and black and white children tend to fall for the same plausible-but-wrong answers. A recent National Academy of Science study has reconfirmed that IQ tests do not underpredict black academic performance, as they would if they tested for "white middle class information" rather than underlying ability. Beyond this, sheer inspection of modern IQ tests suggests they demand what is ordinarily called thinking. Seeing that a figure composed of diagonals is odd man out of a group of figures otherwise composed of verticals requires the detection of abstract relations, not facts restricted to any specific culture. True, the WWI Army tests did contain biased items, about which Professor Gould waxes sarcastic. But he simply ignores the techniques for eliminating bias that have evolved in

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the past 65 years. (Some of the old questions were unbiased; since he can't attack these, Professor Gould dismisses them with jokes.) Even his honesty lapses; quoting a 1923 advertisement offering the Terman-Yerkes tests to schools, he omits by ellipsis Terman's remark that his tests "have been greatly improved in the light of army experience."

So highly correlated is IQ with numerous other variables that while many Good Guys say "IQ tests only the ability to perform on IQ tests," nobody really means it. A typically unctuous double-thinker is Isaac Asimov, who avers late in his autobiography that IQ means nothing, after earlier going on at length about the "160" he scored on his Army IQ test and the fuss the Army made. Would you give up 50 points of your IQ even for a lot of money?

The heritability of a trait in a population—how much it is "based on genes"—is the ratio of the variance (amount of variation) of the population's genotypes to the phenotypic variance of the trait in the population. Professor Jensen discusses numerous studies in which genotypic uniformity drastically reduced IQ variation even when environmental uniformization was controlled for, and estimates the heritability of IQ among whites to be a very high .7. Presumably, IQ is also highly heritable in other human gene pools. Indeed, when black/white is not at issue, the high heritability of IQ is uncontroversial: commenting in the slick weekly Us (January 11, 1982) on 4 children "trained to be geniuses," David Schaffer, Professor of Psychiatry and Pediatrics at Columbia University, says simply "A high IQ is largely genetically determined."

Professor Jensen finds it reasonable to infer from these facts that the mean black/white IQ difference of about 15 points is also genetic in origin. Professor Gould is very exercised by this argument, but his reply is three sentences of flummery: "Within- and between-group heredity are not tied by rising degrees of probability as heritability increases within groups and differences enlarge between them. The phenomena are simply separate. Few arguments are more dangerous than the ones that 'feel' right but can't be justified." Whoa. Eskimos are stocky. Watusis lean; not only is body type highly heritable within each group, anthropologists find it unproblematic that the group difference is genetic, an evolutionary adaptation to climatic differences. Is Professor Gould really willing to bet 50-50 that a Watusi baby raised by Eskimos will grow up stocky? In any case the matter is testable, and Professor Jensen reports studies which control for possible environmental causes, like social class, but in which the racial gap persists. Navajo children are more deprived than black children yet outscore black children on IQ tests. Attempts to boost the IQ of black children by enriching their early childhood have not worked. Most strikingly, the typical growth curve for a black child is identical to that of a white child one to two years younger—a specific finding not explained by the vague assumption that blacks are more deprived than whites. Professor Gould must know of these studies, but as they blunt the axe he is grinding, he ignores them. Professor Jensen notes that no studies show African blacks to be more intelligent than American blacks, and one might add the failure of any sub-Saharan culture to develop a written language as a scientifically "deep" fact that may require a suitably "deep" explanation.

Professor Gould's real complaint about mental testing, however, is that it supposedly "reifies" intelligence-that is, it fallaciously treats intelligence as a substance in the head whose presence can be measured. He repetitiously attacks this straw man, not realizing that it is he who has made an error of numbing grossness. One can believe there are real differences in intelligence without embracing the absurdity that intelligence is a physical object. After all, it is an objective fact that I am seventy inches tall even though my height is not an object. To take a slightly different example, scientists talk about the solubility of sugar even though no scientist supposes sugar cubes to contain little nuggets of a substance called "solubility." Solubility is shorthand for how fast things dissolve in water, just as intelligence is shorthand for how well people think. What is more, scientists attempt to understand solubilitywhy things dissolve in water-in terms of matter's underlying structure. Psychologists can similarly construe intelligence as an ability while searching for its neurological basis.

Professor Gould blames his mythical "reification" on misunderstanding of a statistical technique called Factor Analysis. Since Professor Jensen avoids Factor Analysis as too complex for a popular book, and the tendentiousness of Professor Gould's exposition distorts its accuracy, some preparatory words are in order. If a group of tests exhibits a pattern of mutual correlation, it is reasonable to posit a few underlying "factors" that each test "loads on" to a different extent. To adapt one of Professor Jensen's examples, since scotch and wine are both intoxicating, but scotch more so than wine, these beverages presumably have something(s) in common. Factor Analysis is a method of extracting such "factors" from the welter of correlations between the effects of scotch and wine on behavior. Similarly, Factor Analysis identifies what various mental tests load on, the received opinion being that g is among them. The hobbyhorse that Professor Gould rides to death is that Factor Analysis of itself yields no unique result. We could, for example, posit a unique "intoxication factor" present in greater concentrations in scotch than wine. However, the data permit us to "rotate the axes" and posit two substances, each present to the same extent in scotch and wine respectively, which affect behavior differently. We could even take a "test vector" as an "axis" and say that scotch itself is the intoxicant while wine is dilute scotch. Each analysis accurately codifies the observed effects of wine and scotch. Similarly, we could analyze the mutual correlations of mental tests as expressing one g factor or several different "primary mental abilities." Isn't the choice of one set of fac-tors then arbitrary?, asks Professor Gould. Isn't it meaningless to say IQ loads on one factor, rather than 7 or 120?

No it isn't. True, were observable variables all we had to go on, there could be no choosing between mathematically equivalent summaries of their correlations. But we have more; we can look at the underlying reality. At that level, different choices of factors make predictive differences. *Chemical tests* on beverages would reveal a "unitary factor," namely alcohol. Even without direct tests, general principles of plausibility can select one way of organizing observations as superior to others equivalent to it. It is mathematically possible to use my pulse as

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the standard clock. Yet this calibration would have all of nature slowing down whenever I race up the stairs, a consequence which violates our overall world-view. Theory makes the difference between "equivalent" factorizations. Professor Gould himself admits, when he is not berating g as both meaningless and the product of "bias," that biological investigation could decide for or against it! Anyway, even if IQ tests load on a few yet deeper "primary abilities," the questions about heritability and race-linkage will simply return for them.

Irritatingly, Professor Gould writes as if he had personally discovered a hitherto unsuspected weakness in Factor Analysis, when in fact the inability of Factor Analysis to select a unique interpretation for data has been a commonplace in statistics texts for decades. So keen is he to divert the reader's attention from the present that he even ignores relatively recent work, such as Rimoldi's 1951 study of Argentine schoolchildren, which disputes a unitary g. Be that as it may, Professor Jensen presents yet newer results which support the identification of g with "mental manipulation." The ability to recall a string of digits correlates with IQ only half as well as the ability to give back the string in reverse order. (The gap between black and white performance is comparably greater in "backward digit span" than in "forward digit span" experiments.)

Some people profess to fear that "racists" will use Professor Jensen's findings to do horrible things. But in a society which has suspended the rule of law to give blacks favored treatment, the worry that blacks will be herded into concentration camps because of low mean IQ is, to say the least, premature. Professor Jensen's work does not, of course, lead to this conclusion, or to any policy of state-enforced discrimination. He has made it plain that differences within racial groups are as important as those between groups. Indeed, the chief policy implication Professor Jensen himself draws from his work is simply that careful testing, far from ignoring children's individuality, can aid in detecting individual ability through the screen of culture. Courts that ban IQ tests as "discriminatory" do so out of ignorance. I would add to this a further noninterventionist moral: stop treating every deviation from numerical equality as evidence of wrongdoing. If blacks are on average less intelligent than whites, "underrepresentation" is not necessarily discrimination to be "remedied" by the state. It is certainly worth finding out if quotas punish whites for uncommitted wrongs. And the high correlation between IO and other traits should forewarn conservatives, who usually stress drive as the main ingredient in economic success, that the free market may not eliminate all racial economic disparities.

To a casual reader, Professor Gould's advice might seem to be that we bury our heads in the sand, mumble platitudes about human uniqueness, and denounce critics of environmentalist orthodoxy. He presents this stance as forthright and bold, as if he, not Professor Jensen, were being booed off the podium. But Professor Gould is far more than a monger of liberal clichés. Peering from between his lines—lines about "race and class bias," the "cultural context" of "white male scientists," "slavery, colonialism, racial differences, class structures and sex roles," baseless and inflammatory innuendoes about Professor Jensen's view of the "worth" of races, the passionate cry that "the battles of one group are for all of us"—are our friends Marx and Lenin, and their younger associates of the New Left. Professor Gould's current popularity suggests that some segments of the intelligentsia have yet to overcome that masochism about being American or white or male that the Left exploits so well. It is troubling that Professor Jensen, a target of scorn, embodies Western enlightenment, while Professor Gould the sudden media guru is rooting for the end of the culture that is lionizing him. *Michael Levin*

The News Class

NINETY SECONDS TO TELL IT ALL. By A. Kent MacDougall. (Dow Jones-Irwin, Homewood, Illinois, 1981)

Inflation, declining productivity, and the general deterioration of the economy have given rise to increased public demand for business and economic news. Newspapers, television networks, and news weeklies have expanded their business coverage, and Wall Street analysts and academic economists have achieved celebrity status. The business community does not find this expanded coverage entirely welcome, however. Having once felt ignored, it now feels victimized.

Business executives charge that inaccurate, sensational reporting by ignorant, antibusiness reporters tarnishes the image of business, generates public hostility, and fosters ill-conceived public policy. Not so, say reporters, who counter that business news reporting is reasonably accurate, not overly sensational, and most reporters are remarkably well informed and certainly not biased against business. A great deal is at stake here: if reporters are correct, the free press is performing responsibly its essential role in a democracy, and business's concern is misplaced. But if business is correct, the public is being given a false view of economic reality and encouraged to accept public policies inconsistent with its own interests and, of course, those of business.

This is the issue addressed by A. Kent MacDougall in Ninety Seconds to Tell It All: Big Business and the News Media. By his own admission, Mr. MacDougall has set out to write the "definitive businessmedia study." Although he claims allegiance to high standards of "critical analysis and scholarly discipline," the book is something far less than a definitive study, gives no evidence of scholarly discipline, and contains precious little critical analysis.

Such gross inadequacies do not mean that the book is without value. Appearing originally as a series of articles in the *Los Angeles Times*, the book provides insight into and documents the limitations and biases in the news reporter's treatment of business. That the book lends credence to the very view Mr. MacDougall intends to refute is ironic.

Although news reporters in both the print and electronic media have