

The Magical Aura of the IQ

by Jerome Kagan

This article rejects the use of I. Q tests to attempt to justify social inequality. The author is a professor emeritus of psychology Harvard University, well known for his research on child development. This selection is from The Saturday Review, 4 September 1971.

Every society, or large cohesive group within a society, recognizes that in order to maintain stability a small group must possess some power over the much larger citizenry. The power is sometimes inherited, sometimes awarded, sometimes attained, and sometimes seized. In actual practice, this lean and rather raw description is usually disguised by a clever strategy—much like a magician's wrist movement—that makes select psychological traits symbolic of highly valued, status-conferring attributes—hence, they become the vessels from which power is inevitably drawn.

Tenth-century Europe awarded power to those who were assumed to be more religious than their brothers. The presumption of a capacity for more intense religiosity provided a rationale that allowed the larger society to accept the fact that a privileged few were permitted entry into marble halls. Pericles' Athens and Lee's Virginia both rationalized the subjugation of their slaves on various psychological grounds. At other times and in other places sexual abstinence, sexual potency, hunting skill, a capacity for silent meditation, good soldiering, or efficient farming have been dimensions along which men were ordered and, as a consequence of that ranking, divided into unequal groups.

Contemporary American society uses intelligence as one of the bases for ranking its members, and it makes the same arguments that educated Athenians uttered 2,500 years ago. Major loci of power in the United States reside in state and federal governments, major businesses, and the universities. All three of those institutions

require their members to be regarded by the citizenry as intelligent, and many meet this requirement, in part, by completing a minimal amount of formal education. Education is one of the best reflections of intelligence, the argument goes, for one could not master the school's task without intelligence.

Thus far the ritual and ideology are not very different from the Islamic Moroccan who celebrates the warrior-saint and invents ways to select him. It is more threatening, however, to note that the analogy with the Islamic Moroccan extends to our explanations of the unequal distribution of intelligence in our society. The majority of Americans believe that children are born with a differential intellectual capacity and that, as a result, some children are destined to assume positions of status and responsibility. "Nature intended it that way." A much smaller group believes that this psychological capacity has to be attained through early experience and will.

These opposing hypotheses are identical in substance to the two interpretations of differential "capacity for religiosity" held by Islamites in Morocco and Indonesia. The Moroccans believe that some are born with a greater capacity for strong and intense religious experience. The Javanese believe the greater capacity is attained following long periods of meditation. And they, like us, discover the small proportion of their population that fits the description of the pure, and allows them ascent. The Moroccans explain this phenomenon by arguing that those who possess power do so because they inherited some special capacity that, in our society, is intelligence.

I do not contest the obvious fact that there are real differences among individuals' psychological traits—such as intelligence—that our society values. But I do suggest that, given the insufficient and controversial quality of the information relevant to the causes of these differences, it is likely that deep personal attitudes rather than logic or sound empirical data dictate one's interpretations of the documented variability in IQ.

Let me try to support this rather strong statement with a fragmentary analysis of what an intelligence test is made of. For the widely publicized announcement that 80 per cent of intelligence is inherited and 20 per cent environmentally determined is based on information from two similarly constructed standardized IQ tests invented by Caucasian middle-class Western men to rank order everyone.

The most important set of test questions (important because scores on this set have the highest correlation with the total IQ) asks the person being tested to define words of increasing rarity.

Rarity is a relative quality, depending always on the language community one selects as referent. "Shilling" is a rare word in the language space of the American child, but so is "fuzz." The test constructors decided that rarity would be defined with respect to the middle-class Caucasian experience. And a child reared in a middle-class home is more likely to learn the meaning of shilling than the meaning of fuzz¹. If contemporary black psychologists had accepted the assignment of constructing the first intelligence test, they probably would have made a different choice.

A second set of IQ test questions poses the child some everyday problem and asks him to state what he would do in that situation. For example, one question asks a seven-year-old, "What should you do if you were sent to buy a loaf of bread and the grocer said he didn't have any more?" Clearly, this question assumes a middle-

class urban or suburban environment with more than one grocery store within safe walking distance of the home.

For the only answer for which maximal credit is given is, "I would go to another store." It is not surprising that rural and ghetto children are less likely to offer that answer. Recently I examined a set of protocols gathered on poor black children living in a large Eastern city and found that many of them answered the question by saying they would "go home"—a perfectly reasonable, even intelligent, answer for which they were not given credit.

A third class of IQ test questions, called analogies, has the same dubious validity that the vocabulary test does, for the concepts the child must reason about are of differential familiarity to various ethnic groups. The child is asked how a piano and a violin are alike, not how tortilla and frijole are similar.

The fourth class of questions asks the child to solve some arithmetic problems. Of course, if the child has not learned how to add, subtract, or multiply, he will not be able to solve them. If intelligence is presumed to be 80 per cent inherited, it seems inappropriate that this quality should be measured, in part, by whether one has learned to add.

Another class of IQ test items includes a line drawing of an object that has an element missing and requires the child to discover the missing feature. As one might suspect, the pictures are selected to favor middle-class children, for they depict a thermometer without mercury in the bulb and a hand without fingernail polish, rather than a door without a double lock.

One task that does not favor middle-class white children asks the testee to remember a list of four or five numbers read at the rate of one per second. It is relevant to add that this test usually yields minimal differences between class and ethnic groups in the United States.

Biases in the selection of questions comprise only part of the IQ test problem. There is also a serious source of error in the administration of the test. White middle-class examiners usually administer the tests to

¹ In the 1960s, "fuzz" was slang for "police."—Editor

children of different linguistic backgrounds. The test protocols of the black children mentioned above, gathered by well-intentioned, well-trained examiners, indicated that the children often misunderstood the examiner's pronunciation. When asked to define the word "fur" some said, "That's what happens when you light a match." Clearly, the children who gave this reply had misinterpreted the word to be fire and received no credit. Similarly, when requested to define "hat," some children said, "When you get burned," indicating they perceived the word as hot, and again received no credit.

These few examples, which comprise only a small proportion of all the sources of error that could be documented, are persuasive of the view that the IQ test is a seriously biased instrument that almost guarantees middle-class white children higher IQ scores than any other group of children.

However, most citizens are unaware either of the fundamental faults with the IQ test or of the multiple bases for differences in tested intelligence. And, like the Greeks, Islamic Moroccans, and medieval Christians, we, too, need a trait whose content can form a rational basis for the awarding of power and prizes. Intelligence is an excellent candidate, for it implies alertness, language sophistication, and ease of learning new skills and ideas. Moreover, it is a characteristic of a single individual and, like his fingerprints, is not, in theory, linked with his religion, region, or eating habits.

It is our modern interpretation of saintliness, religiosity, courage, or moral intensity, and, of course, it works. It works so well that when we construct an intervention project, be it a major effort like Headstart or a small study run by a university scientist, we usually evaluate the effects of the intervention by administering a standard intelligence test or one very similar to it.

Our practice reflects the unconscious bias that a child's IQ must be the essential dimension we wish to change. If an intervention does not alter this quintessential quality, the effort is probably not worthwhile. Hence, we create conditions in which poor four-

year-olds leave their homes for a few hours a day to play with other children of their own and other ethnic groups and to interact with new adults. Then we evaluate the growth-enhancing quality of this experience by administering an IQ test, rather than by determining if the child has become friendlier or less suspicious of children and adults who don't come from his family or neighborhood.

What implications are to be drawn from this acerbic analysis of the IQ? The first may seem paradoxical, considering my apparently hostile critique of the IQ test. Despite the injustice inherent in awarding privilege, status, and self-esteem to those who possess more of some attribute the society happens to value, this dynamic seems to be universal, perhaps because it is necessary.

Power—and I mean here benevolent power—probably has to be held unequally. Therefore the community must invent a complex yet reasonable rationale that will both permit and explain the limited distribution of this prized resource.

Knowledge of Western language, history, and customs is not altogether unreasonable as one of the bases on which to found the award. But let us be honest about the footing of this arbitrary decision and rid ourselves of the delusion that those who temporarily possess power are biologically more fit for this role because their brains are better organized. Sir Robert Filmer made this argument in 1680 to rationalize the right of kings to govern, and John Locke's political philosophy was shaped on a brilliant critique of Filmer's thesis. Moreover, the conclusion that those in power are biologically more intelligent does not fit either the mood of objectivity hammered out during the last 300 years of modern scientific work or the historical fact that the use of power for benevolent or malevolent ends has usually been independent of size of vocabulary, arithmetic skill, or analogical reasoning.

I do not deny the existence of biological differences, many of which are inherited between and within ethnic and racial groups. But we do not regard inherited characteristics such as eye color or tendency to perspire as entitling anyone to special favor.

Similarly, we should reflect on the wisdom of using fifteen-point differences on a culturally biased test—regardless of the magnitude of the genetic contribution to the IQ—as a weapon to sort some children into stereotyped categories that impair their ability to become mayors, teachers, or lawyers.

It is possible to defend the heretical suggestion that for many contemporary occupations (note that I did not say all) IQ should

not be the primary attribute upon which a candidate is screened. Of course, biological factors determine a person's muscle mass, brain size, and adrenaline secretion in response to stress. But let us not unfairly exploit these hard-won facts to rationalize the distribution of secular power, which is a political and sociological dimension. To do that would be to use fair science for dark deeds.

