

A Future for the Tests

VI.

HOW does it happen that men of science can presume to dogmatize about the mental qualities of the germplasm when their own observations begin at four years of age? Yet this is what the chief intelligence testers, led by Professor Terman, are doing. Without offering any data on all that occurs between conception and the age of kindergarten, they announce on the basis of what they have got out of a few thousand questionnaires that they are measuring the hereditary mental endowment of human beings. Obviously this is not a conclusion obtained by research. It is a conclusion planted by the will to believe. It is, I think, for the most part unconsciously planted. The scoring of the tests itself favors an uncritical belief that intelligence is a fixed quantity in the germplasm and that, no matter what the environment, only a predetermined increment of intelligence can develop from year to year. For the result of a test is not stated in terms of intelligence, but as a percentage of the average for that age level. These percentages remain more or less constant. Therefore, if a child shows an IQ of 102, it is easy to argue that he was born with an IQ of 102.

There is here, I am convinced, a purely statistical illusion, which breaks down when we remembering what IQ means. A child's IQ is his percentage of passes in the test which the average child of a large group of his own age has passed. The IQ measures his place in respect to the average at any year. But it does not show the rate of his growth from year to year. In fact it tends rather to conceal the fact that the creative opportunities in education are greatest in early childhood. It conceals the fact, which is of such far-reaching importance, that because the capacity to form intellectual habits decreases as the child matures, the earliest education has a cumulative effect on the child's future. All this the static percentages of the IQ iron out. They are meant to iron it out. It is the boast of the inventors of the IQ that "the distribution of intelligence maintains a certain constancy from five to thirteen or fourteen years of age, when the degree of intelligence is expressed in terms of the intelligence quotient."* The intention is to eliminate the factor of uneven and cumulative growth, so that there shall be always a constant measure by which to classify children in class rooms.

* Revision, p. 50.

This, as I have pointed out, may be useful in school administration, but it can turn out to be very misleading for an unwary theorist. If instead of saying that Johnny gained thirty pounds one year, twenty-five the next and twenty the third, you said that measured by the average gain for children of his age, Johnny's weight quotients were 101, 102, 101, you might, unless you were careful, begin to think that Johnny's germplasm weighed as much as he does today. And if you dodged that mistake, you might nevertheless come to think that since Johnny classified year after year in the same position, Johnny's diet had no influence on his weight.

The effect of the intelligence quotient on a tester's mind may be to make it *seem* as if intelligence were constant, whereas it is only the statistical position in large groups which is constant. This illusion of constancy has, I believe, helped seriously to prevent men like Terman from appreciating the variability of early childhood. Because in the mass the percentages remain fixed, they tend to forget how in each individual case there were offered creative opportunities which the parents and nurse girls improved or missed or bungled. The whole more or less blind drama of childhood, where the habits of intelligence are formed, is concealed in the mental test. The testers themselves become callous to it. What their footrule does not measure soon ceases to exist for them, and so they discuss heredity in school children before they have studied the education of infants.

But of course no student of human motives will believe that this revival of predestination is due to a purely statistical illusion. He will say with Nietzsche that "every impulse is imperious, and, as *such*, attempts to philosophize." And so behind the will to believe he will expect to find some manifestation of the will to power. He will not have to read far in the literature of mental testing to discover it. He will soon see that the intelligence test is being sold to the public on the basis of the claim that it is a device which will measure pure intelligence, whatever that may be, as distinguished from knowledge and acquired skill.

This advertisement is impressive. If it were true, the emotional and the worldly satisfactions in store for the intelligence tester would be very great. If he were really measuring intelligence, and if intelligence were a fixed hereditary quantity, it would be for him to say not only where to place each child in school, but also which children should go to high school, which to college, which into the professions, which into the manual trades and com-

mon labor. If the tester could make good his claim, he would soon occupy a position of power which no intellectual has held since the collapse of theocracy. The vista is enchanting, and even a little of the vista is intoxicating enough. If only it could be proved, or at least believed, that intelligence is fixed by heredity, and that the tester can measure it, what a future to dream about! The unconscious temptation is too strong for the ordinary critical defences of the scientific methods. With the help of a subtle statistical illusion, intricate logical fallacies and a few smuggled obiter dicta, self-deception as the preliminary to public deception is almost automatic.

The claim that we have learned how to *measure hereditary intelligence* has no scientific foundation. We cannot measure intelligence when we have never defined it, and we cannot speak of its hereditary basis after it has been indistinguishably fused with a thousand educational and environmental influences from the time of conception to the school age. The claim that Mr. Terman or anyone else is measuring hereditary intelligence has no more scientific foundation than a hundred other fads, vitamins and glands and amateur psychoanalysis and correspondence courses in will power, and it will pass with them into that limbo where phrenology and palmistry and characterology and the other Babu sciences are to be found. In all of these there was some admixture of primitive truth which the conscientious scientist retains long after the wave of popular credulity has spent itself.

So, I believe, it will be with mental testing. Gradually under the impact of criticism the claim will be abandoned that a device has been invented for measuring native intelligence. Suddenly it will dawn upon the testers that this is just another form of examination, differing in degree rather than in kind from Mr. Edison's questionnaire or a college entrance examination. It may be a better form of examination than these, but it is the same sort of thing. It tests, as they do, an unanalyzed mixture of native capacity, acquired habits and stored-up knowledge, and no tester knows at any moment which factor he is testing. He is testing the complex result of a long and unknown history, and the assumption that his questions and his puzzles can in fifty minutes isolate abstract intelligence is, therefore, vanity. The ability of a twelve-year-old child to define pity or justice and to say what lesson the story of the fox and crow "teaches" may be a measure of his total education, but it is no measure of the value or capacity of his germplasm.

Once the pretensions of this new science are thoroughly defeated by the realization that these are not "intelligence tests" at all nor "measure-

ments of intelligence," but simply a somewhat more abstract kind of examination, their real usefulness can be established and developed. As examinations they can be adapted to the purposes in view, whether it be to indicate the feeble-minded for segregation, or to classify children in school, or to select recruits from the army for officers' training camps, or to pick bank clerks. Once the notion is abandoned that the tests reveal pure intelligence, specific tests for specific purposes can be worked out.

A general measure of intelligence valid for all people everywhere at all times may be an interesting toy for the psychologist in his laboratory. But just because the tests are so general, just because they are made so abstract in the vain effort to discount training and knowledge, the tests are by that much less useful for the practical needs of school administration and industry. Instead, therefore, of trying to find a test which will with equal success discover artillery officers, Methodist ministers, and branch managers for the rubber business, the psychologists would far better work out special and specific examinations for artillery officers, divinity school candidates and branch managers in the rubber business. On that line they may ultimately make a serious contribution to a civilization which is constantly searching for more successful ways of classifying people for specialized jobs. And in the meantime the psychologists will save themselves from the reproach of having opened up a new chance for quackery in a field where quacks breed like rabbits, and they will save themselves from the humiliation of having furnished doped evidence to the exponents of the New Snobbery.

WALTER LIPPMANN.

A Postscript

This discussion has already provoked a lengthy correspondence which suggests the advisability of summarizing at this point the conclusions arrived at in the series of articles. The argument which I am prepared to defend is as follows:

1. The statement that the intelligence of the American nation has been measured by the army intelligence tests has no foundation. Generalizations, like those of Mr. Lothrop Stoddard, that "the average mental age of Americans is only about fourteen" are in the strictest sense of the word nonsense.

2. There is reason to hope that for the purpose of more homogeneous classification of school children the intelligence tests may be of some practical benefit if administered with scepticism and sympathy.

3. This benefit is in great danger of being offset by dangerous abuse if the claims of the intelligence testers are not purged of certain fundamental assumptions.

4. The most important of these fundamental assumptions are:

- (a) that the intelligence test measures "intelligence,"
- (b) that "intelligence" is fixed by heredity, and that the intelligence test reveals and measures hereditary intelligence.

5. The attempt to construct a universal test of native intelligence on these assumptions may be an interesting theoretical experiment, but the claim that such a test exists, or is likely soon to exist, is scientifically unsound, is designed to lead to social injustice and to grave injury to those who are arbitrarily classified as predestined inferiors or superiors.

6. The claim that a universal test of native intelligence exists is not only unfounded and harmful, but it is also stultifying to the practical development of the tests themselves. Instead of aiming at a universal test of hereditary intelligence, psychological research should be directed towards the development of a multitude of specific tests for the use of administrators, industrial, scholastic or military, as the case may be, who have to deal with the practical problem of selecting and classifying groups of people. The aim should be to test, not the capacity of the germplasm of John Smith, for that cannot by any knowledge we possess be distinguished from his training, but the specific fitness of John Smith at this moment to do the work of the eighth grade, to run a freight locomotive or to sell medium priced automobiles. For tasks of modern life are much too varied to be measured by a single and universal test. One series of tests for intelligence is as meaningless as would be the attempt to measure time, space, weight, speed, color, shape, beauty, justice, faith, hope and charity, with a footrule, a pound scale and a speedometer.

W. L.

Children of Darkness

(*in their generation wiser than the Children of Light*)

We spurred our parents to the kiss
Though doubtfully they shrank from this—
Day had no courage to review
What lusty dark alone might do—
Then were we joined from their caress
In heat of midnight, one from two.

This night-seed knew no discontent,
In certitude his changings went;
Though there were veils about his face,
With forethought, even in that pent place,
Down towards the light his way he bent
To kingdoms of more ample space.

Was day prime error, that regret
For darkness roars unstilled yet?
That in this freedom, by faith won,
Only acts of doubt are done?
That unveiled eyes with tears are wet,
They loathe to gaze upon the sun?

ROBERT GRAVES.

The Death of the Pueblos

NOTHING less than death from poverty, starvation and disintegration will be the fate of the Pueblo Indians of New Mexico if the Bursum bill, which passed the Senate in September, should become law. This bill ostensibly is a measure to settle the disputed titles of non-Indian claimants to Indian patented lands. In reality it is a new and sweeping encroachment on these lands, since it takes as final proof of boundaries the so-called Joy survey made in 1914-16. This survey showed every small cabin, ranch or field within the Indian boundaries, giving to each claim such dimensions as the claimant chose verbally to define. It was essentially a map and nothing more; it involved no investigation into the validity of the claims, but was a preliminary step toward such investigation. On the face of each of the hundreds of blueprints is written that this was merely "a depicting of present conditions" and that it was never to be used in any way as proof of title. Now the Bursum bill proposes to make this Joy survey into "prima facie evidence" of the extent of holdings. Supplementary to this, the United States court is ordered to accept and make competent "secondary evidence" in proof of title. The court is not *allowed* but *ordered* to accept this type of evidence, which opens the door to miscellaneous perjury.

Another curious and sinister reversal of past policies contained in the Bursum bill is the proposal to take the settlement of all internal Pueblo affairs into the federal courts, furnishing each discontented individual with free legal services even though he wishes to carry his grudge against the tribal authority to the Supreme Court of the United States. The United States government since 1830 has maintained a Bureau of Indian Affairs for the express purpose of handling the delicate psychological, industrial and governmental problems of the American Indians. It has very justly been thought necessary that trained officials versed in Indian psychology and traditions should handle these problems. Fourteen million dollars a year are appropriated by Congress for the work of this Bureau. And now from a clear sky, apparently with no thought of its own self-confessed failure, the Indian Bureau, as quoted by Secretary Fall and Senator Bursum, endorses a bill which in this most vital respect removes its own reason for existence. Apart from the inconsistency here involved, the tragedy for the Pueblo Indians is very great. It means an end to the internal harmony of the tribal life. It has been the effort of three centuries of wise Spanish, Mexican and American