

A Judgment of the Tests

CONFRONTED with the question: What do the intelligence tests test? the cautious psychologist can only answer that they test what they test. But while this may be a sufficient foundation for the theorist, school authorities cannot be content with it. What they need to know is the practical value of the tests for purposes of diagnosis. They have to make at least a provisional estimate of the external and predictive significance of these internally standard devices.

Since the Binet scales are to be used in schools, Mr. Burt* adopts as his criterion for testing the tests, the judgments of the class teacher and the principal. "There is," he says, "no standard of comparison which can surpass or supersede the considered estimate of an observant teacher, working daily with the individual children over a period of several months or years." (p. 199)

He finds, and of course he is speaking of the London schools he has studied, that among normal children the average correlation between Binet mental ages and the teachers' estimates of intelligence tests disagree most radically for the very youngest children, and for the children who are over twelve years old. We noted last week that the tests also showed the greatest difference between rich and poor, girls and boys, at the two ends of the scale. The closest agreement between the teachers' estimates and the tests is in the middle, particularly at the ages of seven, eight and twelve.

The next question is whether these results impugn the teachers' judgments or the Binet scale. To throw light on this problem, Mr. Burt introduced a control experiment for the children from ten to thirteen years of age. The experiment consisted of a series of reasoning tests. For the ten year old child these tests are of the following sort:

There are four roads here:

I have come from the South and want to go to Melton.
The road to the right leads somewhere else.

Straight ahead it leads only to a farm.

In which direction is Melton—North, South, East, or West?

For the thirteen year old child, the following test is a sample:

A pound of meat should roast for half an hour.

Two pounds of meat should roast for three quarters of an hour.

Three pounds of meat should roast for an hour.

Eight pounds of meat should roast for two hours and a quarter.

Nine pounds of meat should roast for two hours and a half.

From this can you discover a simple rule by which you can tell from the weight of a joint for how long it should roast?

These tests correlate more highly with the teachers' estimates than the Binet tests for the same years. They average .70 as against the Binet average of .51. This control experiment tends to vindicate the teachers' judgment, and so Mr. Burt concludes, that "the inaccuracy lies not with the teachers but with the tests. Hence, *with children in ordinary elementary schools, the Binet-Simon tests, as tests of intelligence, prove but moderately successful.*" (p. 200. Italics are Mr. Burt's.)

When it comes to testing defectives, Mr. Burt finds that the scale is more trustworthy, and that the teachers' estimates are less trustworthy. Apparently, the teacher finds it peculiarly hard to understand the manifestations of the different varieties of mental defect. The Binet-Simon scale should, therefore, prove helpful here, but its reliability varies at different ages. For defectives Mr. Burt finds the scale most reliable at the mental ages of five, six and seven, apparently because there are more tests arranged for these years. In the ages two to five, nine and ten, and at thirteen and above, the tests are least efficient with defectives.

Finally it may be interesting to let Mr. Burt sum up his own conclusions about the whole business. (p. 208)

Numerous factors affect the measurement of a child's intelligence by means of the Binet-Simon scale. Sex influences it but little; social status rather more; educational, and particularly linguistic, attainments more profoundly than any other factor measurable with exactitude; while qualitative conditions, such as temperament and emotional attitude, affect it in a degree that is too variable to fix and too elusive to define. Among delinquents, indeed, paucity of educational attainments and peculiarities of emotional attitude will debase their performances and impoverish their replies to a degree that may be gravely deceptive; and unless duly discounted, may engender an unwarrantable suspicion that the bulk of them are mentally defective. . . .

Interrupting at this point, it should be stated that I have omitted from these articles Mr. Burt's profoundly illuminating discussion of mental defect. I may however cite one illustration to emphasize his warning against hasty assumption of mental defect among delinquents. At the New York Reformatory for Women, one examiner using the Binet scale reported that all the inmates were feeble-minded; other examiners, using case

* Mental and Scholastic Tests. (London: P. S. King.) See preceding articles.

histories and records obtained from teachers and attendants report that but 15 to 20 percent appear mentally deficient. (p. 190)

With this warning Mr. Burt proceeds:

In diagnostic value the single tests differ vastly. Many are scholastic; most are linguistic; few yield a high correlation with intelligence. The numerous educational tests have an occasional value; the rarer tests of reasoning a permanent value; and some tests, such as suggestion, no value at all.† In discriminating the child of the special school (for abnormals) from the child of the ordinary school, the scale as a whole is tolerably successful; in grading the special school children amongst themselves it is almost as efficient; in grading the normal children among themselves it is less accurate than other tests which are now at hand; and in detecting supernormal ability it is altogether invalidated by the anomalies and the lacunae among the problems for the higher mental years. (p. 208)

This is, as Mr. Burt remarks, "but a faint and faltering recommendation for the Binet-Simon Scale." It will seem to many a peculiarly honest and penetrating recommendation, giving confidence because it claims so little and that so modestly, where all confidence had been destroyed by gigantic and boastful claims.

Apparently, even two years ago when Mr. Burt published his book, English confidence in testing had been badly shaken, as ours is now, because "the unwarranted claims advanced on its behalf by votaries in foreign quarters have among academic psychologists in this country become a commonplace and a byword." For the critical reader in America there is no book available, so far as I know, which so completely disposes of these unwarranted claims, while holding fast to the present practical value and even greater future promise of mental measuring.

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† Professor Terman omits this test.—W. L.

High Road

Love is the way that lovers never know
Who know the shortest way to find their love,
And never turn aside and never go
By vales beneath nor by the hills above,
But running straight to the familiar door
Break sudden in, and call their dear by name,
And have their wish and so wish nothing more
And neither know nor trouble how they came.

Love is the path that comes to this same ease
Over the summit of the westward hill,
And feels the rolling of the world and sees
The sun go down, and hears the summer still,
And dips and follows where the orchards fall,
And comes here late—or never comes at all.

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In Defence of the Army

SIR: An editorial entitled *Discrediting the Army*, in your issue of April 18th, dealing with the difference between General A. A. Fries and Mr. Frederick J. Libby of the National Council for the Prevention of War, intrigues my interest.

I agree with you in your conception of what the military establishment of our nation shall consist of. I also agree with you in your opinion as to the attitude an army officer should maintain toward the civil population. It seems we both think that no officer of the army has a right to engage in a controversy with individuals or organizations in such a manner that his remarks might be construed as being representative of the opinion of the War Department, the army or even a group of fellow officers. There is nothing new in that. Every officer who has been in the Service for more than a day and a half is well informed on that score, I know, and I believe most civilians are also aware of it. Some civilians, Mr. Frederick J. Libby of the National Council for the Prevention of War for example, are so well aware of it that they attempt by means of representations to the Secretary of War to silence General Fries and others so that the public may be informed only of their own views on the subject of preparedness.

But I do not think that an army officer renounces all of the privileges of citizenship when he takes his oath and that he has no right, as an individual, to attempt to stem the tide of fallacious theories and manhandled facts being propagated by Mr. Libby and his male and female adherents.

I conceive it to be the duty of an army officer to point out the needs of the country in national defence and if he encounters a theory which is either deliberately or unintentionally false I conceive it to be his duty to point out the errors involved. That apparently is what General Fries was doing when Mr. Libby found him at it and insisted that he be silenced.

Newspapers and other periodicals by the score devoted much breath to broadcasting an array of figures supplied by Mr. Libby's organization which had been so juggled and were then so artfully presented that it appeared that 85.8 percent of the national taxes was being spent on national defence. At least, that is the impression which the average dazed taxpayer received when he was confronted with them. But, I saw very little space or time anywhere devoted to the fact that the Secretary of War, quoting as his authority the figures of the Bureau of the Budget, a source certainly as authoritative as Mr. Libby, proved conclusively that only 13.5 percent was being spent on purely national defence. A civilian friend, who read this statement from Mr. Weeks somewhere, said, "For God's sake, why doesn't the army do something to let the people know this?"

The notion that the regular army is an everpresent factor in our national life which seeks to embroil us in conflict is shopworn. I honestly believe that even the most backward of our citizens no longer believe that. Except for a purely temporary increase in ranks, I cannot think of any way by which an officer of the regular army can thrive by war and certainly the blows and buffets he receives in the period of peace and reorganization immediately following every war should take all taste for war based on temporary rank away from him. The thought of war is naturally abhorrent to the regular army because it bears its first shock and then takes a goodly portion of its succeeding blows. There is a way to world peace but it does not lie along the paths pointed out by people who, taking advantage of a natural revulsion to war, manoeuvre themselves into well-paying positions from which they dispense dangerous theories. World peace will be accomplished ultimately, not by discarding our self-protection but by educating the mass of the citizens of the world and then teaching them to think.

You call General Fries a pernicious busybody. I do not know General Fries personally and will not attempt to draw any comparisons between him and Mr. Libby. None could be drawn. The objects the two men are trying to attain are of a widely different character but I leave it to your second thought to decide which is the pernicious busybody.

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