A COMPARISON OF WHITE AND COLORED CHILDREN MEASURED BY THE BINET SCALE OF INTELLIGENCE

BY JOSIAH MORSE, PH.D.
UNIVERSITY OF SOUTH CAROLINA

WHEREVER the methods of science have been inapplicable, or for some reason been left unapplied, opinion has held sway, and, as the adage has it, the number of opinions has equalled that of the men holding them. This, it need hardly be pointed out, is seen clearly in the histories and literatures of religion, philosophy, ethics, politics and many branches of the newer social sciences. It is notoriously true of discussions of race problems, even when the opinions have been held by scientists eminent in their own special domains. Thus we have a Boaz, who can see no essential difference between the negro and white races, and a Le Bon, who is equally certain that a "mental abyss" forever separates the two peoples, and that the negro is the much inferior of the two.

In the hope that the Binet tests would yield a few grains of fact which might leaven the lump of opinion, the writer directed Miss Alice C. Strong, a graduate student of the University of South Carolina, to measure with the Binet scale, as revised by Dr. H. H. Goddard, the white and colored school children of Columbia, S. C. The same tests were given to both the white and colored children under practically uniform conditions, with the exception that some of the colored children tested were older than twelve years. The course of study in the colored school, which is a part of the public school system, is essentially the same as in the white schools, and the quality of teaching is good. The children seemed to be at ease in the presence of the white examiner, and to do their best. No marked variation from the white children in the manner of responding could be noted. In almost every case the dress, cleanliness and manners of the children indicated that they came from good homes. The replies were usually couched in fewer words than those of the white children. There was less tendency to enter into conversation, and it was soon found that they were more at ease when reacting to the tests than when an attempt was made to talk with them about other things.

The following are the tests which were given to the children of both races, ranging from six to twelve years inclusive.

Six Years: (1) Is this morning or is it afternoon. (2) What is a fork? a table? a chair? a horse? a mama? (3) Do you see this key? Put it on that
chair. Then shut the door. After that bring me the box that is on the chair. Remember, first the key on the chair, then close the door, then bring the box. Do you understand? Well, then go ahead. (4) Show me your right hand. Show me your left ear. (5) Which is the prettier? (Six drawings of heads of women, three pretty and three ugly or even deformed ones, arranged so that the pretty one is now at the left and now at the right are shown the child.)

Seven Years: (1) Child must count thirteen pennies placed in a row, touching each piece with the finger as it counts. (2) Pictures representing a man and a boy drawing a cart loaded with furniture; a woman and an old man sitting on a bench in a park in winter; a man in prison looking out of the window, a couch, chair and tables are shown the child, and it is required to describe them. (3) Three unfinished drawings of a woman’s head, and one of a woman with the arms missing are shown and the child is asked, What is lacking in that picture? (4) Copy with pen a diamond about three or four centimeters. (5) What is this color? (touching with the finger pieces of red, blue, green and yellow papers).

Eight Years: (1) What is the difference between a butterfly and a fly? Wood and glass? Paper and cloth? (2) Count backwards from 20 to 1. (Should be done within 20 seconds.) (3) Name the days of the week. (Must be given in order without omission within 10 seconds.) (4) Arrange in order three 1 and three 2 cent stamps. Child is asked to find by counting how much money it will take to buy them. (5) The figures 4–7–3–9–5 are repeated slowly and distinctly. The child is required to repeat them.

Nine Years: (1) Play store, using real money. Child is storekeeper, and is given some pennies, nickels and dimes with which to make change. A four-cent purchase is made, and a quarter presented. Child is required to give change. (2) Child asked to define common objects, same as in 6-year test. Definition must be better than by “use.” (3) Name the day of the week, the month, the day of the month and the year. (4) Name the months of the year. (15 seconds allowed.) (5) Arranging in proper order five cubes of same size and appearance but loaded so as to weigh 6, 9, 12, 15, 18 grams.

Ten Years: (1) Naming nine pieces of money, e.g., cent, nickel, dime, quarter, half dollar, dollar, two dollars, five dollars, ten dollars. (2) Draw two geometrical designs from memory. (Designs exposed 10 seconds.) (3) Repeat six figures: 854726, 274681, 947185. (4) Questions of comprehension: (a) What ought one to do when he is detained so that he will be late for school? (b) What ought one to do before taking part in an important affair? (c) Why does one excuse a wrong act committed in anger more easily than a wrong act committed without anger? (d) What should one do when asked his opinion of some one whom he knows only a little? (e) Why ought one to judge a person more by his acts than by his words? (5) Make a sentence containing the words, Columbia, money, river.

Eleven Years: (1) Find the nonsense or absurdity in the following sentences: An unfortunate cyclist had his head broken and is dead from the fall; they have taken him to the hospital and they do not think that he will recover. (b) I have three brothers, Paul, Ernest and myself. (c) The police found yesterday the body of a young girl cut into eighteen pieces. They believe that she killed herself. (d) Yesterday there was an accident on the railroad. But it was not serious: the number of deaths is only 48. (e) Some one said “If in a moment of despair I should commit suicide, I should not choose Friday, because Friday is an unlucky day and it would bring me ill luck.” (2) Use three words in a sentence (same as in age ten). (3) Say as many words as you can in three minutes. (At least 60 words should be given.) (4) Give as many words as you can think of that rhyme with “day.” (5) Make sentences out of these words:
The mental age of the child is determined by the highest group of tests he can pass successfully. Only one failure is permitted in each group. If in addition to passing his group successfully the child passes as many as five tests in higher groups he is given an additional year's credit. Thus, if a seven-year-old child pass all or all but one of the seven-year tests and three of the eight and two of the nine-year tests he is rated eight years mentally. Or if he misses two tests in his group, and therefore fails, but passes five tests in higher groups he is rated as normal. If he is more than three years backward he is mentally defective. The tests begin with the group corresponding to the child's physical age, e. g., a child eight years old is tested first with the eight year old tests, and then with the seven or nine, as the case may require.

The results of the investigation upon the white and colored children may be briefly summarized as follows:

<table>
<thead>
<tr>
<th></th>
<th>Colored, Per Cent.</th>
<th>White, Per Cent.</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than one year backward</td>
<td>29.4</td>
<td>10.2</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>69.8</td>
<td>84.4</td>
</tr>
<tr>
<td>More than one year advanced</td>
<td>0.8</td>
<td>5.3</td>
</tr>
</tbody>
</table>

The number of white children testing at age is decidedly larger than any other group, whereas for the colored children the largest group is the one testing one year below age. In the satisfactory group there is a difference of nearly 15 per cent. between the white and colored; nearly three times as many colored are more than a year backward, and less than 1 per cent. are more than a year advanced.

The picture tests gave the colored children considerable trouble, probably due to difference in racial esthetics. The tests relating to time and money, distinguishing between morning and afternoon, enumerating the months, counting stamps and making change, the drawing tests, both copying and reproducing from memory were all too difficult. The answers to the questions of comprehension, to the absurd statements and to the problems of various facts, were often absurd or senseless; the best replies, however, compare very favorably with those
of the white children. The definitions were often not better than terms of use, and frequently stated in the language of a younger child.

In general it may be said that the colored children excel in rote memory, e.g., in counting, repeating digits (but not one was able to repeat 26 syllables), naming words, making rhymes and in time orientation. They are inferior to the whites, however, in esthetic judgment, observation, reasoning, motor control, logical memory, use of words, resistance to suggestion and in orientation or adjustment to the institutions and complexities of civilized society.

To what extent these differences are due to difference in racial intellectual ability, and how much to environmental influences, differences in physiological age, or other subtle factors, cannot be dogmatically stated. They are certainly not due to difference in school training. In order, therefore, to make the comparisons as just as possible, and at the same time ascertain the extent of the influence of environment, the white children were divided into two groups—city children and mill children. The economic, educational and environmental conditions of the cotton-mill children are but little, if any, better than those of the colored children. The results of the comparison showed that the proportion of colored children who are satisfactory is less than that of the mill children, which in turn is less than that of the city children. Less than 6 per cent. of the city children are more than a year backward, 18 per cent. of the mill children, and 26 per cent. of the colored children. None of either the mill or colored children test more than one year above age, while 10 per cent. of the city children do.

These facts and the figures upon which they are based appear more vividly in the following graphs:

Another table of statistics showed that the colored children made a better showing in the first five grades than in the first seven, but their inferiority to the whites existed throughout the school years, contrary to the widespread opinion that colored children are as well, if not better, endowed during the first school years. Again, according to the Binet scale, a larger number of white children are in a school grade below their mental ability than above, whereas the reverse is true of the col-
ored children. A rough classification into three groups, according to color—dark, medium, light—showed that the darkest children are more nearly normal, the lightest show the greatest variation, both above and below normal.

The limitations of the study are evident. It is but a crude beginning of a subject that will doubtless soon be opened up and made to yield interesting and profitable data. It need not be pointed out what radical changes would have to take place in our educational theory and practise, as well as in our social philosophy, if it should be shown conclusively that races differ in mental capacity and aptitude just as they do in physical appearance. No final conclusions, however, are here offered, nor is any attempt made to settle once and for all the question of race superiority or inferiority. That requires investigation along many lines hardly opened up as yet. But this much we may surely conclude from the above study: that negro children from six to twelve and possibly fifteen years are mentally different, and also younger than southern white children of corresponding ages, and that this condition is partly due, at least, to causes that are native or racial. That is, if MM. Binet and Simon had originally tested southern negro children they would have worked out from the results a scale which would have been different from their present one in several respects, and which when applied to southern white children would be found to be, for the most part, a year or more too young, though possibly there would be some tests which would yield the opposite results.

Perhaps some day each branch of the human family will have a Binet scale of its own. Then, by a wholesale interchange of tests, as we do now with professors, it will be possible to determine wherein a given people are proficient and wherein deficient; and later, perhaps, by adding coefficients and credits to settle mooted questions of racial rank. But this again belongs to the realm of speculation.

Probably the point of greatest value brought out by this study is that perchance a key has been found in the Binet scale which will prove of the greatest service in the solution of problems in contemporary folk-psychology and race and social adjustments. Certain it is that these important human problems need the spirit, methods and instruments of science applied to them. The Binet scale is the first instrument that has appeared.