A COMPARATIVE STUDY OF WHITE AND NEGRO CHILDREN

By Dagney Sunne, Ph.D.

As New Orleans offers unusual opportunity for comparative study, an investigation was begun last year to compare white and negro children of nearly similar social and economic status by means of the Binet and Yerkes Point Scales and other tests. All the white children above grade II in a school situated in one of the very poorest districts were selected for examination in order to have environmental and school conditions as nearly similar as possible to those of negro children of corresponding age and grade. It was hoped that the results would indicate whether the ordinary school program is as well adapted to the negro children as to the white. The purpose was not so much to get a general intelligence quotient, as to find out specific points of similarity and difference. The children, white and negro, attend public schools in the same district. The white children were tested first and then an almost equal number of negro children of as nearly the same age and grade as possible. Each child was examined individually by the investigator. The superintendent, principals and teachers cooperated heartily in the investigation, and the children, who assumed that it was merely a new kind of school exercise, were eager for the tests and seemed to do their best. Both principals and teachers were unaware that the tests were made for a comparative purpose. No children below the second grade were examined as it was desired to employ other tests that required the ability to write and to use colored crayons. The white children are mainly of Irish, German, Italian and French ancestry, but all are natives of New Orleans. In only two families is a foreign tongue used to any extent in the home, and few of the children can understand even a word of the language of their parents. Consequently all of these boys and girls may be considered English-speaking children. The white children tested by both scales numbered 112, 47 girls and 65 boys, from grades II to V inclusive; 116 negro children of corresponding

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According to school grades, the negro children are more retarded than the white as regards both gross percentage and amount, the differences being 10% and .2 year. However, the percentage of retardation is the same for both groups in grade II, and a little less for the negro than for the white in grade V. The negro girls get higher averages than the white boys. By the Point Scale ages the gross percentages are the same, but the averages of the amounts vary by .1 year. The retardation of the negro children is less in percentage than that of the white in grades II and V, and less in amount in grade II.

Reckoned by Binet ages the percentage of retardation of the negro children is greater than that of the white children, though the average amount is the same for both. At 11 the negro percentage is a little less, and at 8 the two groups are about even. The percentage of retardation is greater for both groups by the Point Scale though the difference between them is about the same by the two scales, the negroes being the more retarded. The difference in amount is a little more than .1 year in favor of the white children. As to percentage of retardation at different age levels, that of the negroes is less at 8, 11, 12, 14 and 15, and the two groups are even at 13.

The differences between the boys and girls both white and black are somewhat variable. The white girls in every grade average higher according to both scales than do the boys. The same is in general true for the negro girls. In grade IV the latter rank lower than the boys according to the Binet Scale, and their amount of retardation increases in the higher grades more than it does in the case of the boys. The white girls surpass the boys in all their averages at every age according to the Point Scale scores and ages, but the average of their Binet ages is lower at 8, 9, and 12. The general averages of the negro girls according to chronological ages are higher than those of the negro boys, but the averages of their Point Scale scores and ages are lower at 9 and 14 and their Binet averages are lower at 9 and 13 than those of the negro boys. There is, consequently, some indication of a difference in mental development between boys and girls at the 8-9 year level and at early adolescence.

In order to compare racial and sex differences, the white children were grouped into a lowest 25%, a highest 25% and the medium 50% according to their scores by the two scales, and the percentage of negro children between the same
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limits was found. The percentage of negro children in the lowest group is greater than that of the white, but also the percentage in the highest group. According to this grouping the sex difference between the white boys and the white girls, and between the negro boys and the negro girls is greater according to per cents of the Point Scale scores than the corresponding race differences, but according to the Binet ages and the Point Scale ages, the race differences in the two highest groups are greater than the sex differences. If these children are compared as to amount of their scores according to the different scales the sex differences between the white children according to Point Scale ages are greater than race differences at chronological ages 10, 11, 12, and 13, and similarly the sex differences of the negro children at 8, 9, 10, 11 and 12. According to Point Scale scores the sex differences of the white boys and girls are greater than race differences only at 13, but the sex differences of the negro at 8, 9, 11 and 12. Only at 10 and 13 according to the Binet ages do the white boys differ more from the girls than each sex does from the corresponding negro boys or girls, and the negro boys and girls at 11 and 12 differ more widely from each other than they do from the white children, that is, the racial differences in amount of Binet scores are greater than the difference between the boys and girls of each race. These comparisons show the great variability of racial and sex differences at the different age levels, and also that the amount of this variability depends on the scale used. On the whole, the negro boys and girls differ more from each other than do the white boys and girls, and the scores seem to indicate some definite racial differences, which become more apparent when the rating of the children in each test is considered.

According to the Point Scale the negro children are inferior to the white in exercises 3, 5, 8, 11, 15, and 20, though the averages conceal the fact that the negro boys do slightly better than the white boys in tests 5 and 8. The same facts are brought out by the Binet Scale only in part, as the scores show the negro children inferior in tests V, I, XII, 4, and VIII, 2, equal to the white children in tests IV, 4, and IX, 5, and decidedly superior in test X, 4. The differences between the children and divergences of the scores according to the two scales are both significant. Their rating in Point Scale 3 and Binet XII, 4 and IV, 4, shows that the negro children can distinguish the longer and shorter of pairs of lines as accurately as the white children, but when the six pairs of lines are arranged so as to test suggestibility they will yield to the suggestion much more readily. In the test of arranging weights (Point Scale 8,
Binet IX. 5) the scores of the white children are higher according to the Point Scale but equal to those of the negro children by the Binet Scale, a variance that shows a preponderance of higher scores on the part of the former. As this exercise tests motor adaptation and accuracy of judgment in manipulating things, the negro boys and girls may be inferior in both. So far the investigation has disclosed no definite difference between the two groups in methods of handling the weights, so that it seems that the lower scores are due chiefly to deficiency in accurate motor discrimination. In the comprehension test, the negro children do better than the white according to Binet scoring (X. 4) but less well according to the Point Scale (15), due to the greater frequency of the less comprehensive and intelligent answers. The examiner received the impression from these answers of the negro children that kindness and forgiveness and the avoidance of bad words had been drilled into them as general principles, so that they replied as they felt they "ought" rather than as they would act. Such an attitude was not prominent among the white children except in a few special instances and in the problem of action versus words. In the white school the use of offensive language had to be strenuously discouraged. Hence judging character by the language used loomed large before the white children as well as the negro children. Both groups of children did poorly in completing the analogies (Point Scale 20). From the white children 61 correct answers were obtained for one analogy (almost invariably a), 26 correct answers for two analogies, six for three and three for four analogies. The corresponding results for the negro children were 58, 17, 12 and 5, or 54% of the white children were able to give 1 correct answer, 23% gave 2 correct answers, 5% gave 3 correct answers and 2.5% gave 4 correct, as compared with 46%, 12.5%, 10% and 4% for the negro children between 8 and 15 years of age. Perhaps such results indicate slightly less general intelligence on the part of the younger negro children than the white. Four correct replies were given by 2 thirteen-year-old white girls, and 1 fifteen-year-old boy, and in the case of the negro children by an eleven-year-old girl, 2 girls and 1 boy fourteen years of age, and by a fifteen-year-old girl. Analogy (a) proved to be the easiest and (e) the most difficult.

In memory tests, according to the Binet Scale, the white boys do best in VIII. 5 (repeating 5 digits), and the white girls in IX. 3 (giving date); the negro children a little better in the other tests except VIII. 3 (giving days of week) in which both groups get the same averages. The general aver-
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ages according to the Yerkes Point Scale are a little higher for the negro than for the white children, but as in the case of the Binet Scale the scores for the different age levels are very variable. The negro children average higher in the tests requiring immediate retention of words than in retaining numerals. Their scores for memory span of digits (Point Scale 4) show fewer scores of 5 both relatively and absolutely than do those of the white children, but they have more scores of 4 in this test.

On the other hand, the negro children do better than the white children in describing and interpreting pictures, in giving words for three minutes, in constructing and re-constructing sentences and in defining abstract terms. How much better many of the negro children succeed in describing pictures and in giving words for three minutes is not brought out clearly in the scores. They described the pictures with greater detail and understanding than the white children, so that it was often difficult to decide between description and interpretation, and in such cases the error in marking tends toward a lower rather than a higher scoring, in order to avoid giving undue credit to ease in use of words and to imaginative responses without the deeper comprehension. The free-association test called forth a much greater number and variety of words among the negro than among the white children. The latter in the majority of cases confined themselves to objects in the room or immediate surroundings, the former drew freely from all sorts of experiences. The other tests in which they do better also involve the use of words, or the appreciation of form as in drawing a square, a diamond, and designs from memory. This group of negro children, then, do worse than the white children in work that demands finer sensory discrimination and resistance to immediate impression such as the tests in estimating lines and weights, and in some forms of reasoning, but they do better in tests demanding verbal analysis and facility and constructive imagination.

There are some tests in which the negro boys do better than the white boys, but the negro girls worse than the white girls, namely, in tests 5, 9, 10, 17, 19 of the Yerkes Scale. The averages for these tests show that the girls and boys of each race are very nearly alike, the averages being somewhat in favor of the girls both white and negro. Thus the apparent anomaly must be due to the mental superiority of some of the white girls. The scores of the boys as distinct from those of the girls in the Binet tests show few differences of any considerable amount. The white girls do better than the boys
in defining concrete and abstract words, giving date and naming months and the boys do better in the game of patience, in repeating numerals and drawing designs from memory, which results perhaps indicate better permanent retention of details on the part of these girls and better immediate discrimination and memory on the part of these white boys. The negro girls surpass the negro boys in arranging weights and constructing sentences and the boys in the game of patience, copying the diamond, drawing designs from memory and counting stamps. Thus these negro girls do better in kinaesthetic discrimination and verbal analysis and the boys in visual discrimination and motor co-ordination.

Some interesting facts result from a study of the scores of the white and the negro children in the tests used by Binet and which were not adopted by Yerkes. In test V.5, the negro children made many more failures than the white children, and the girls are worse than the boys. When this test was given the number of moves made by each child was recorded. The white girls who succeeded in the test averaged 5 moves, the successful boys 3 moves, while those who failed averaged 10 moves for the boys and 11 for the girls. The successful negro children made an average of 3 moves each; the unsuccessful boys averaged 6.5 moves each and the girls 5. In this test the individual negro was not slower than the white child, but as many more failed, their average reaction time is higher than that of the white. No negro child made as many attempts as some of the white children. Several of the children both white and black arranged the triangles correctly but did not notice it, and continued trying different arrangements. All the white boys who failed were over 3 years retarded except one boy, almost 3 years retarded, who made 24 attempts. The white girls who failed were about evenly divided between the worst and the best according to their scale scores. The negro children showed a similar tendency, though a few boys with comparatively high mental age averages failed. One 11 year old negro boy about 2 years retarded made 22 moves, the largest number. Some of the most retarded children, both white and black, were satisfied with an incorrect arrangement of the triangles.

In the Binet tests of executing three commissions, distinguishing between right and left and recognizing all the pieces of money, the black and white children are about even, but in making change the negro children are inferior, but superior in naming the date and the months and giving rhymes. Not a single child solved completely the problem of reversing the clock hands, though a small number, about the same per-
percentage of each race, gave correct answer to half of the test. The difficulty may have been not so much lack of ability to control visual imagery as lack of acquaintance with timepieces. This test and the problem questions were the most unsatisfactory tests for these children. One negro girl alone gave the answer required by Binet for the first problem, but 4 white boys and 1 girl suggested a corpse or a man hanging. All of these children readily gave answers to (b) such as sickness, death, fighting and killing, but few gave a complete explanation for the presence of the three officials, and these few failed in problem (a). To the latter problem the answers of the negro children were more varied and specific, and fewer of them answered leaf, moss, or branch than did the white children. The negro children, both boys and girls, did a little better with the code test than the white children.

The designs drawn from memory were often extremely fanciful, many queer additions or changes being made, so that the copies were entirely different from the originals. No difference in difficulty between the two designs could be inferred from the results. Here the white children seemed to draw as freely on their imagination as the negro, as they contributed 28 and the negro 25 of these peculiar drawings. These designs were about evenly divided among the white boys and girls as well as among the more and the less retarded. As regards the negro children, all the most retarded of those above 12 years of age, and almost the same number of the more and the less retarded among the younger children produced some bizarre designs.

In connection with the Binet tests the scores for opposites were obtained for the negro children. When the white children were tested 3 failures were deemed sufficient to make further work with that test unnecessary, except with the fifth grade children who were given the test in full. All of the negro children were given all 20 words, no matter how many failures or mistakes were made. Thus a complete comparison between the two groups is not possible. As far as they are comparable, the negro boys do better at every age than the white boys, while the white girls are superior to the negro girls only at 11 and 13. The white children are below Pyle’s norms except the 11 year-old white girls. The negro boys are below these norms except at the ages of 9, and 10, and the negro girls also except at the ages of 8, 9, and 10. The scores are probably not fairly comparable with Pyle’s norms as the tests were administered differently, but the scores seem at least to indicate that these children are inferior to the children tested by Pyle. On the whole, the Opposites test also
appears to be one involving the use of words in which this group of negro children is superior to the white children tested.

In addition to the individual testing of each child by means of the Binet and the Point Scales, three different class tests were given under the direction and supervision of the investigator. As these tests involved reading and giving of directions that had to be comprehended by the whole room full of children, it seemed better that the class-room teacher do the actual talking in order to avoid any possible misunderstanding from a difference in pronunciation.

The first of these tests was the so-called logical memory test, The Marble Statue. The story was read to the children and they reproduced it, being given all necessary time for writing what they recalled. The directions given by Pyle\(^2\) were followed exactly and the results compared with his norms. According to the averages in this test, the negro children seemed on the whole inferior to the white, whether classified according to sex, age or grade, with the exception of the fourth grade, where the white boys had lower scores than the negroes. The same inference must be made from a comparison of these scores with Pyle's norms. Though the white children in general average below these norms, the negro children are still lower as can be seen from the average deviations, \(-.49\) for white boys, \(-.61\) for white girls, as compared with \(-1.04\) and \(-1.45\) for the negro boys and girls respectively. If five records which are less than half the average scores and which are made by retarded children are excluded, the average deviation from Pyle's norms will be \(-.36\) for 41 white boys, \(-.7\) for 41 negro boys and \(-1.22\) for 28 negro girls, while the white girls exceed Pyle's average by \(+.18\).

As the reproduction of this story may be to a great extent verbatim repetition and at the best is a measure of the ability to retain and organize ideas logically, it seemed that interesting differences might be brought out by giving the children an opportunity to let their fancies roam freely. The beginning of the story suggested by G. M. Stratton in the "Atlantic Monthly" February, 1916, p. 212 in his article, "Girls, Boys and Story-Telling," was used. This was read to the children by the teachers who asked their pupils to finish it as well as they could. The compositions resulting have been entitled "The Princess" and marked according to the number of ideas added by the children to complete the story. The superiority of the negro children of corresponding grades

and ages over the white children is almost startling. The general average for the white boys is 3.4 (M. V., 1.3), for the white girls 4.8 (M. V., 2.2), for the negro boys 10.8 (M. V., 3.9) or 12 if two greatly retarded boys are disregarded, and for the negro girls 12.6 (M. V., 3.4) while only one white girl surpasses the average of the negro girls and not a single white boy reaches the average of the negro boys. The fifth grade average for the white children is 5 as against 11.3 for the negro. The fact that the negro children are somewhat older cannot be the sole explanation of this difference, as both white and negro boys do best at 11 and the girls at 13.

The correlation between the Marble Statue and the Princess gives the following coefficients: For the white boys grade III., \( r = 0.22 \), grade IV., \( r = 0.32 \), grade V., \( r = 0.48 \); and for the girls grade III., \( r = 0.37 \), grade IV., \( r = 0.01 \), grade V., \( r = -0.42 \) For the negro children the coefficients are for the V., grade boys \( r = -0.38 \), and for the girls \( r = 0 \), for the VI. and VII. grade boys \( r = -1.0 \), and for the girls \( r = -0.94 \), and for both boys and girls \( r = -0.96 \). These divergences in correlation suggest some difference in the mental processes of these children when confronted with such a test as completing a story. For most of the white children it is apparently a matter-of-fact task, a perfunctory duty; for many of the negro children it becomes a delightful chance to call forth memories and fancies, though the former have much better opportunity to see pictures and read stories.

Color preferences of negroes are often supposed to be distinctly different from those of white people. In order to investigate this assumed difference and also to test their aesthetic judgment in this field, each child was given the box of eight colored crayons used in their drawing work and outlines on rag-paper of a little girl holding over her shoulders a long cloak or train which falls on the floor behind her. Although such a figure would be familiar to all, it also would be out of the ordinary so as to stimulate inventiveness. Recollections of carnival costumes might also show their influence.

Classifying these colored drawings first by the color of the dress, as being the most prominent feature, we find that of 78 negro children the boys show a decided preference for blue with yellow a distinct second, while the girls also put blue first with orange a much closer second. No boy chose green for the dress while among the girls green and red tied for the fourth place. For the color of the cloak, the negro boys make red first, orange second choice; the girls blue first choice, yellow second, and red a close third. The white boys select
blue and red as first and second choice for the dress; the girls show a decided liking for red, while blue is second in rank. No definite preference is shown for any one color in the cloak; the boys choose red and yellow, and the girls yellow and blue most frequently.

The color used most often by both white and negro children is black. The order of frequency for the white children, black, yellow, red, brown, blue, orange, green, purple, as compared with that of the negro children, black, yellow, brown, orange, red, blue, green, purple, shows that red is chosen more often by the white than by the negro, by boys rather than by girls, and that green and purple are at the end of the scale of preference, while orange stands much higher among the negro than among the white children. Thus the liking for bright colors seems in this case to be no stronger among the negro than among the white children. It is also surprising that the children often used faint colors rather than the stronger hues, and that the negro children especially combined a faint and a heavy tone of the same color. It may be of interest to note that the order of preference for the color of the hair is for the white children, black, brown, yellow; for the negro, brown, yellow, black. Some college girls in the Art Department who colored the same drawings chose blue, orange, green and yellow, or combinations of these for the dress, did not use black at all, and made the hair yellow or auburn.

The colored drawings of these 167 children were submitted to two art teachers for judgment and classified as excellent, good and poor. One of them judged the drawings just as similar work of college art students would be estimated, according to accuracy and correct relations of color values, the other placed more stress on color tones and inventiveness. The former will be termed the A, the latter the B classification. According to the A judgments 9% of the colored drawings of the white children were excellent, 29% good and 61% poor, and only 18% of those of the negro children were good and the rest poor. According to the B verdict, 17% of the work of the white children was excellent, 44% good, and 39% poor, as compared with 23%, 33% and 43% for the negro children. In the case of the latter the B judgments place the majority of the children whose chronological ages, Binet mental ages, and Yerkes Point scores are highest among those who do best in coloring, while the A judgments class the children whose scores are medium as good in coloring the outlines. For the white children the two sets of judgments agree much better as to chronological age and Binet standing, but show some divergence in relation to the Yerkes scores, more of those whose scores fall between 40 and 60
being considered good by B than by A. Fewer of the children, both white and negro, of the upper grades are put in the poor class by B than by A. It seems from these facts that the use of colors by the negro children is more primitive, but also capable of development along new lines. To the investigator the poorer work of the two groups seems very similar, though none of that done by the negro children is quite so crude as that done by a few of the white girls and boys, while the better work shows more daring and striking combinations than any tried by the white children.

More of the colored drawings of the white boys than of the girls were judged excellent by both A and B, though a greater number of girls than of boys were put in the "good" class by B. The work of the girls was considered decidedly poorer by A, 54% of the boys as against 72% of the girls being put in the lowest class, while in the B list 40% of each sex are found in the poor class. The negro girls were considered somewhat better than the boys by A (21% as against 15%) while a greater number of boys than of girls were put in the "excellent" and "good" group by B.

An attempt was made to correlate this work in coloring with the story of "The Princess". Here the B judgments show somewhat better positive correlations with the story than do the A judgments as regards negro girls, while in the case of the negro boys, the A judgments are in inverse correlation with the upper 50% and very close correlation with the lower 50%, while the B judgments sustain exactly the opposite relations. Too few subjects were tested to draw any conclusion.

A comparison of these results with the findings of other investigations shows both similarities and differences. The conclusion drawn by A. C. Strong that "colored children are mentally younger than the white children of corresponding ages" is true of these children also if measured by the Binet Scale, but not according to the Point Scale. That "the colored children test more irregularly than the white children" is partly corroborated by this investigation, but the conclusion that "according to the Binet Scale a larger number of white children are in a grade below their mental ability rather than above, and the reverse is true of the colored children" does not hold of these children. As to the difficulty of individual Binet tests the results are in harmony as regards the difficulty of IX. 2 and 5, X. 2 and 4, XI. 5 and XII. 3, 4, 5, and the ease of VIII. 1, 3, and 5, and X. 1. But VIII. 4 and X. 5 proved harder for the white children than for the negro, and

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XII. 1 and 2 hard for both. Not any child examined gave both answers required by Binet for XII. 5, though some reasonable answers were given by both groups.

The observation of Phillips⁴ that "the colored pupils as a class were good in the memory tests and poor in those requiring judgments" coincides only in part with the results of these tests. That they "were generally slower in response" was true as regards some of those who were more retarded, but not of the group as a whole. In fact their reaction time seemed less in exercises that test verbal associations and analysis. Mr. Phillips found the negro children "less animated." No such difference could be noted between these children.

The results of the measurements of these two New Orleans groups are in substantial agreement with those of Miss Perring⁵ that the negro children on the whole are older and have apparently fewer physical defects than the white children, and that they are more retarded, only the retardation is greater in amount in the case of these children than was found in the Philadelphia School.

As the tests reported by Ferguson⁶ were entirely different from those tried on the New Orleans children no comparison is possible. As regards the variance in ability between the full-blood and mixed-blood, the writer ventures no conclusion, as too few of the former were tested.

As far as comparable, the results of this investigation agree on the whole with those reported by Pyle⁷: that the racial differences are variable, that the negro girls surpass the boys more than the white girls surpass the white boys (if the averages alone are considered), and that negro children are inferior in motor-co-ordination.

Summary

1. Specific differences between these white children and negro children seem to be mainly a greater facility in control of words, a more fertile imagination as relating to general human activities, though not in problems demanding mechanical preciseness and ingenuity, and a more original and perhaps more primitive taste in use of colors, on the part of the latter;

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greater resistance to suggestion, better kinaesthetic discrimination and motor control, and perhaps a better capacity for logical analysis on the part of the white children. The tests in reasoning on the whole show no definite race differences. Contrary to a prevalent notion, these negro children were not superior to the white in verbatim reproduction or immediate retention, and about equal to them in tests of permanent retention. A greater variety of details was noted by the negro children in the Binet pictures, so that in this respect their capacity for observation is keen. In work requiring constructive imagination, as shown in story telling, they were far superior to the white children tested. The test used to get a clue to differences in color preferences did not show a more decided choice of the brighter and more saturated colors by the negro than by the white children. The variance in reaction of the white and of the negro children to the test in finding rhymes made this also one of the more significant exercises, as complete failure in giving rhymes was very rare among the black, but rather frequent among the white children.

2. The variability of the scores of these children may be due to race differences, sex differences, or variations in individual capacities. If all the results are considered, the influence of the latter factor is probably as great as either of the others.

3. The educational bearings of the results of these tests may be significant if corroborated by more extensive investigations. They indicate on the part of the greater number of these negro children a keener sense of rhyme, an unusual facility in story-telling and originality in color combinations. For example, in their stories suggested by the Binet pictures and their compositions on “The Princess” many of them showed an artistic development very different from any manifested by the white children. On the other hand, in exercises that test abilities most commonly demanded in our public schools, the majority of the black children reach the average of white children markedly regarded both according to school grades and mental tests, though some of them exceed it. But if there are certain traits in which they differ conspicuously from the white children it would seem advisable to encourage and train these peculiar tendencies as well as more general capacities instead of exclusively trying to fit them into the pattern that suits a majority of the white children. Educational progress may be achieved both by conforming to high standards and by individual variations.
SIDETRACKING OF STUTTERING BY "STARTERS"

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The object of this paper is to collect from patients methods and means used by stutters to start their own speech.

The so-called "starter" is not a symptom or sign of stuttering. It is not always present in uniform shape; but varies according to the ingenuity of the patient and according to the methods he happened to stumble upon. As it is not a symptom or part of the disease itself, a definition is therefore apropos under such circumstances.

A "starter" consists in any sort of a makeshift, start, action or attitude that a stutterer consciously or unconsciously invents in order to facilitate the flow of language. More detail can hardly be taken without encroaching upon the main part of the paper. Perhaps one illustration will suffice to clarify this definition. For example, a stutterer comes to me and tries to say "Good-morning, Teacher," but the "g" sticks in his throat and he is unable to utter it till he moves both elbows outward. This he claims starts his speech somewhat better than without it. To the external observer he is able to utter the "g" in "good" and the word "teacher" runs off easily itself afterwards.

The patient has consciously invented this speech helper and consciously employs it to start his speech and finally it may become an unconscious motion.

A word about what the "starter" is not. The starter is not a cure. The starter is not something that has been told the patient by another; otherwise it would be a method of cure or at least a method of relief. Starters are not the same in their form. Finally they are not any part of the disease whatever. A starter is not tic; and not chorea.

With this, I think it will be clear just what a starter is and what it is not. Let us proceed then to describe what they stand for and do when used by patients.

The principle of starters is simple and always the same. The sole and only reason for employing a starter is for the obvious reason of diverting the attention from the throat contraction and throat spasm and the accompanying mental strain that prevents utterance.