PSYCHOLOGY

Promise of Genius in Children Revealed by Simple Tests

Psychologist Works Out Picture and Block Games That Show Youthful Appreciation of Art

By MARJORIE VAN DE WATER

WOULD YOU think of asking young Betty Jane, aged two, how she likes the arrangement of the living room furniture? Or consulting with Bobby, who is not quite four, as to where he would plant the lilacs if he were "landscaping" the garden?

Probably not, for most parents and

Probably not, for most parents and other elders have heretofore regarded artistic taste as a much later development in the life of the child. Now, however, psychologists searching for the beginnings of artistic talent, have discovered that long before the child is old enough to go to school he is able, if given the opportunity, to show an appreciation of beautiful color combinations, of correctly balanced composition, and of various other elements of art.

And he can also, consciously or unconsciously, make use of artistic principles in his own creative work—whether it be drawings, modeling in clay or the more every-day ways of dressing a doll, arranging the furniture in a doll house or choosing a particular necktie or hair ribbon. He can, that is, if he is gifted with artistic talent

Some day it may be possible for the parent or teacher of a child to give him a series of tests and learn what his chances are of developing into an artist if given the proper training.

At the University of Iowa, a group of psychologists are just completing the first two years of a seven-year investigation of the genesis of art talent. One of the most interesting facts so far discovered in the course of the study is the surprising variation that exists among different children as early as the fifth or sixth year, both in their interest in artistic objects, and in their own creations of an artistic nature.

Dr. Norman C. Meier, who is in charge of the investigation, has already reached the conclusion that conditions in the child's first seven years determine roughly whether any amount of future

training, study, ambition, or exhortation can make of him an artist.

His artistic capacity depends partly upon the equipment with which the child comes into the world. The potential artist has well developed senses which allow him to see and feel the beauty in the world around him. He must be physically able to distinguish colors and forms in nature. And he must have also a well-developed central nervous system that will enable him to respond to whatever he sees and hears and feels.

What Makes the Artist

Dr. Meier believes, however, that this is only part of the story. The proper development of the senses and nervous system are essential to the artist, but it is not this that sets him apart from other children. Any intelligent child grows in this fashion. What is it then that makes the artist?

It is the answer to this question that is being sought in the psychological laboratory at Iowa University. From what has been discovered in these first two years of the investigation, Dr. Meier concludes that the development of a special "aesthetic intelligence" depends not only upon endowment by nature, but upon the child's environment in his infancy and early childhood.

"If the child's attention is drawn very early to nature with its infinite variety of forms, this child will be looking for form in almost everything he handles", Dr. Meier says. "He will not eat his popcorn as quickly as his equally intelligent companion will, but rather mull over it, finding starfish, triangles, butterflies and other suggested forms. Hence, his imagination will be richer, his desire to express his new ideas and concepts more frequent—and his artistic products will reflect this."

Many children, and grown-ups too for that matter, walk about without a thought of the sights and sounds that are passing them by.

If the child is taught really to see whatever his eyes fall upon, he will

notice many things in nature that are balanced, symmetrical, rhythmical and harmonious, and will learn to gain pleasure from such things when he meets them. It is very likely that he will come across more balanced arrangements than unbalanced, more harmonious than unharmonious, so that in time he will come to expect to see the beautiful and will regard it as the natural, normal thing.

Then, Dr. Meier says, the bases of artistic capacity may be considered to have been established.

And this foundation is laid much earlier than has been supposed. As a preliminary to their study, the scientists asked competent judges of art to study a collection of over one thousand artistic efforts of little children under school age. These were mostly paintings in one to four colors and were made by the children entirely without direction from anyone else. The art authorities analyzed them to find out how much design or to what extent art principles were to be found.

Two out of every three of the paintings were declared by the judges to have some definite artistic merit! Children as young as four years of age can and commonly do produce artistic drawings and paintings when given the proper opportunity.

Some of these early attempts at drawing are a great annoyance to parents, especially when the space selected for the work is the nice smooth light cream-





THE CHILD'S SENSE OF FITNESS or the fact that he has none at all may be shown by the way a child arranges this doll garden. The one who places the shrubs in as orderly and as balanced an arrangement as they are in the upper picture has a feeling for artistic principles which the lad who fixes them as they are

below lacks.



DR. NORMAN C. MEIER

He says that conditions in the child's first
seven years settle the question of artistic
ability or lack of it.

colored wall on the south side of the living room. Yet there have been parents who actually encouraged this outrage of properties with interesting results.

The family was a somewhat large one and all the children were fond of drawing. Paper and pencils were scarce, so the younger ones were allowed to draw with burnt sticks on the walls of a long passage. The littlest lad, Joshua, did not do so well as the others, but when he was 8 he drew a picture of his school which his father told him was "wonderful." Years later, the King of England knighted him for his artistic accomplishment, and Sir Joshua Reynolds became a justly famous painter.

If you have a small child in your family or acquaintance, you are probably wondering how you can detect the germ of art talent in its small beginnings. It will not do, of course, to wheel the baby carriage down to the art museum with the idea of securing his judgment on the paintings there. Even if the child were able to distinguish between the different works of art, he would have no language with which to express what he saw.

There is another approach to the problem, however, which Dr. Meier has followed. This is in watching the child at his own play. Every child loves to build with blocks. Does any pattern suit him? Is he satisfied with making

a haphazard pile or jumble of his blocks? Or does he create in orderly fashion, making a balanced, harmonious construction? Does he apparently follow some definite plan which he has in his own mind?

Seeking the answer to these questions, and at the same time a basis for comparing a group of children, Parmely Daniels, one of the psychologists working with Dr. Meier, used the following procedure. Each child was shown two ready-constructed designs built of blocks. One of the designs was in balance and the other was not. The child was simply told to "build something like one of those."

Some children copy the balanced design from one set, but later choose the unbalanced from another pair. But others, Mr. Daniels found, invariably copy only the balanced pattern. When questioned later this latter group also say that they like the balanced construction better. They may not realize why they make their choice, but the fact that they are consistent shows that they are able to make a distinction between the artistic and unartistic.

Test of Rhythm

And here is another test of art for little tots. This time the psychologist wanted to measure the child's ability to recognize the artistic principle of rhythm. Constance Jasper designed the test, which consisted of a series of border designs like those sometimes used around the walls of nurseries. In one the design consists of a repetition of the figure of a rabbit. The rabbits all appear to be running in one direction, but one space is left blank. The child is given four different figures of rabbits and told to put one of them in the blank space to finish the design. Only one of the figures carries on the movement in the design.

This test was given to children as young as two years old, but at that age and up until four there was very little success. From four to six, children

seem to increase greatly in this ability. Some of these in the first grade had almost perfect scores.

A more natural situation was used as a measure of the color sense of children still in the kindergarten or nursery age. Practically every child, even a small boy, loves to dress dolls. Eileen Williams, the assistant who conducted the research on this particular phase of the art-testing problem made doll dressing into a test.

She had the doll already dressed in a pretty china silk dress, dyed an attractive color. The child was then given the doll and also four scarfs, one of which might be chosen to finish the dressing of the doll. All four scarfs were dyed in pretty colors, but only one harmonized with the color of the dress already on the doll. If the child consistently chose the harmonizing color on three different trials, she was given credit for passing.

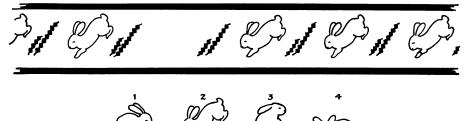
The test results brought out the fact that color sense develops in general at about the fourth or fifth year.

Perhaps the most interesting of the tests is one which is just now being developed by K. Snow in the same laboratory. The materials for this are miniature houses, trees, bird baths and other ingredients for making a landscape, all in clay. The child "plants" the trees, grouping them in any way he likes. To make clear to him what he is to do, he is shown photographs of several possible plantings. The arrangement selected indicates his appreciation of artistic unity and fitness.

This test is still in the experimental stage and has not been given to many children, but already it has demonstrated the fact that some children are able to make use of artistic principles even though they are probably much too young to analyze or understand them.

(This article was edited from manuscript prepared by Science Service for use in illustrated newspaper magazines. Copyright, 1931, by EveryWeek Magazine and Science Service.)

Science News Letter, May 16, 1931



A GAME TO TEST THE CHILD'S SENSE OF RHYTHM

The one who places bunny No. 2 in the empty space in the top border is more apt to