# AN EXPERIMENTAL STUDY OF RELATIONSHIPS BETWEEN ETHICAL JUDGMENT AND ETHICAL CONDUCT OF PRE-SCHOOL AND PRIMARY CHILDREN

By

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G. R. B.

## Abstract.

This study of the relationship of age, intelligence, judgment and amount of schooling to conduct, was carried on with a three-fold purpose.

(1) to discover the relative importance of age, intelligence and amount of schooling as factors of ethical conduct.

(2) to discover the relative importance of age, intelligence and amount of schooling as factors of ethical judgment.

(3) to discover relationship between ethical conduct and ethical judgment of children 4, 5, 6 and 7 years of age, ranging from pre-school to second grade.

Through the cooperation of Eugene schools, Condon, Edison and Francis Willard, first grades, and the kindergartens of Mrs. Jackson, Miss Thompson and Mrs. Burch, of Springfield, and parents of fourteen children not attending school, 120 children were each given three tests; namely, an intelligence test, (Stanford-Revision of Binet) a judgment test, and a conduct test, during the winter and spring, 1931-32.

The scores obtained from the 360 tests were used as a basis of the findings. Six tabulations of the results were made on the basis of chronological age, mental age, I Q, amount of schooling, judgment score and conduct score. Throughout the study comparisons were drawn between the same factors that seem to have a bearing on conduct. All other previous studies have been carried out in the field of pre-adolescent and older groups.

None have dealt exclusively with relationships of conduct in the pre-school and primary levels.

The results of this investigation showed that the following tendencies began to be manifested; namely,

1. C A and amount of schooling are associated with consistently increasing judgment scores; M A appears to be a significant factor after the 4th mental year is reached. Those of retarded mental status showed lower judgment scores.

2. Children under six years of age in school possess a greater amount of ethical knowledge than do pre-school children of similar age with higher mentality.

3. Judgment is not indicative of conduct. While judgment enables one to know what society approves, it does not assure corresponding conduct.

4. A study of the factors M A, C A, I Q and length of school experience in relation to conduct scores show no such successive gains as did the study of judgments. However, the C A and amount of schooling show general increase in scores. Conduct scores on the basis of M A and I Q groups are noticeably lower than the scores of judgment of the similar groups.

5. Ethical conduct is experienced before corresponding ethical knowledge is achieved.

6. Conduct of children apparently determines their ethical judgments until about the time they enter school.

7. It seems an inevitable conclusion that the

factors examined in this study are not basic determiners of conduct. The control of conduct should be sought in the field of attitude and feeling rather than in the field of knowledge and achievement.

These results emphasize the need of keeping constantly before the parent and teacher in the early years, necessity of training and directing conduct along wholesome standards of living.

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## CHAPTER I.

### Need of Conduct Research and Statement of Problem.

The development of public opinion in education favorable to conduct tests has been singularly slow. In an age of rapid educational progress and of widespread interest in mental tests and research, the leaders of thought were less interested in conduct tests than in many other practical educational problems. Furthermore, there was no general conviction as to the ends to be obtained by education in the field of moral conduct. The question of moral education has been so little considered before 1920 that no public opinion on the subject existed.

Until the conviction developed that moral education was desirable and necessary from the point of view of the school, moral theory had no foundation upon which to build. The first step in this direction was taken in recognizing the benefit which individuals derive from greater knowledge. Ability to read was regarded as adequate to moral regeneration of the individual. From this point of view the individual became regarded as a member of society which would receive benefit from the moral improvement of the individual.

Interest in the child has spread so rapidly within the last decade as to appear to be a new development; still the movement is not altogether modern. Ancient history reveals an occasional

reformer who contemplated the significance of the development of young children. About four hundred years before the Christian era, Plato stressed the importance of the early years of life. John Amos Comenius (1592-1670) seemed to have been among the first to realize that social conditions could be improved by a more liberal education. Although he agreed with his contemporaries in the innate depravity of childhood, he believed also that education could correct evil tendencies.

As the movement has progressed during the past century, the growth appears to have been in the clearer definition of objectives in the young children and in methods of organization and procedure. The present emphasis in psychology and education on the importance of the study of the early life of the child represents the modern tendency directed toward prevention.

The argument thus far has been that understanding, emotion and attitude underlie conduct; that education directed toward these factors and that measurement of changes therein, is a result of education. The measurement of underlying factors is not specific; direct measurement of behavior itself is necessary. Such measurement has been attempted with various forms of behavior. Those factors which exert direct bearing upon social adjustment include measurement of trustworthiness, truthfulness and honesty. These forms of behavior are closely akin and may be regarded as aspects of the same fundamental form.

Personality is made up of characteristics which manifest themselves in behavior. The presupposition accepted in the present study is that action is the final test of personality. All factors which have an influence on behavior should be included. If intelligence influences behavior, it should be taken into account, if age or maturity is a factor it, likewise, should be considered.

The beginnings of one's attitudes toward others, of the recognition of mine and thine are made in the pre-school years. The child gets a "set" which is a large element in determining whether he is to be fundamentally honest and capable of facing even an unpleasant situation. Behavior is essentially a social process; the child is born into a social environment and throughout his life is forced to adjust on a social basis.

This study attempts to determine the specific characteristics of conduct in relation to intelligence, C A, M A, amount of schooling and judgment. The present investigation is a part of a program of experimentation concerned with the relationship between age, ethical knowledge and ethical conduct. The present study sets forth the methods and results of an investigation of two types of behavior, each of which extends theoretically from an unsatisfactory adjustment to one of satisfactory adjustment. The first situation contrasts the accepted grading of tests and the unethical use of model forms. The second test contrasts the tendency to continue an uninteresting

performance until the task is finished, after one has given his word to do so, with resistance to the tendency to pursue an interesting activity.

We may refer to them as expressions of tendency toward honesty and truthfulness in those specific situations. We shall deal primarily with behaviors; recognizing the significance of motives as another, altho intricately related problem. The entire study is to be regarded as dealing with specific form of behavior rather than character, and is carried on with a threefold purpose:

(1) to discover the relative importance of age, intelligence and amount of schooling as factors of ethical conduct.

(2) to discover the relative importance of age, intelligence and amount of schooling as factors of ethical judgment.

(3) to discover relationship between ethical conduct and ethical judgment of children 4, 5, 6 and 7 years of age, ranging from pre-school to second grade.

These aims rest upon conduct as the criterion and the pursuing of those aims gives rise to the following questions:

1. What is the relation between conduct and mental age?
2. What is the relation between conduct and chronological age?
3. What is the relation between conduct and I Q?
4. What is the relation between conduct and amount of schooling?

5. What if the relation between judgment and mental age?
6. What is the relation between judgment and chronological age?
7. What is the relation between judgment and I Q?
8. What is the relation between judgment and amount of schooling?
9. What is the relation between conduct and judgment?

The crucial problem, after all, is the conduct of the child as it is related to other factors of social life; emphasizing the early recognition of unethical conduct. The pupil should be adjusted to the acceptable standards of ethics and this adjustment is highly important in the early years.

The primary interest in undertaking this investigation lay in the attempt to discover what, if any, are the differences between the conduct of groups of pre-school and primary children with mental ages ranging from inferior to very superior.

The basic question is: Are there fundamental and characteristic differences between the judgment and the conduct of children of different school levels, and of normal or superior intellects on the one hand, and inferior intellects on the other?

The further problem that arises is: What is the nature of the differences between conduct of widely differing abilities?

## CHAPTER II.

### Summary of Previous Studies.

Scientific studies which seek to determine the foundation for personality development are more extensive than is generally believed. Grace Manson includes one thousand three hundred and sixty-four articles and books in a compiled bibliography up to and including 1926. A classification is made of over four hundred traits.[1]

Bird Baldwin includes the literature from January 1, 1923, to March 31, 1928, under five hundred thirty-nine references.[2]

A. A. Roback lists three thousand three hundred forty-one titles in a three hundred page bibliography.[3]

The Murphys reported eight hundred studies, many of them concerned with the measurement of personality.[4]

During the last ten years, studies in personality and character have been conducted at the rate of several hundred a year. A review of all the available material in this field

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1. Manson, Grace; A Bibliography of the Analysis and Measurement of Human Personality up to 1926. National Research Council, No. 72, 1926--p. 59. Washington, D. C.

2. Baldwin, Bird; Child Psychology. A review of the Literature, January, 1, 1923 to March 31, 1928. Psychological Bulletin, 25 (Nov. 1928)--pp. 628-697.

3. Roback, A. A.; Bibliography of Character and Personality. Sci-Art Publishing Co., Cambridge, 1927.

4. Murphy, G. M. and L. R.; Experimental Social Psychology, Harper and Brothers, N. Y., 1931, p. 694.

would resolve itself into a monotonous listing of titles. Therefore, only those studies that have a direct bearing on the subject, either by techniques suggested or studies of conduct of primary children, will be considered.

Hartshorne and May have done a vast amount of work in devising tests of character and in revealing the social attitudes of different groups.[5]

Their work has gone far beyond any previous attempts to use conduct tests. The correlations which are secured between moral knowledge and actual deception were low and many were negative. The authors realize the complexity of the problem, the dependence of behavior upon the specific qualities of each situation and the limited transfer to other situations.

The Candy-Inhibition Test, suggested in Studies of Self--control, was adapted and used by the author as one of the tests in the promise situation.

The investigation by H. S. Tuttle deals with the actual school situation in the grades from four to eight.[6] He reported the tendency that each next higher grade in school showed improvement. Improvement was not uniform in all schools.

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5. May, H. A. and Hartshorne, H.; Testing the Knowledge of Right and Wrong. Religious Education Monolog. 1927, 1, no. 2, p. 50.

6. Tuttle, Harold S.; Honesty Trends in Children. Journal of Educational Sociology, December, 1931. Vol.IV, No. 4., p. 235.

Geographical locations and I Q's were most closely correlated with conduct. An adaptation of his technique was used for both of the cheating tests.

These two studies have been selected to illustrate the methods and findings of the types of studies, in which the techniques have been adapted for use in this study. These studies have dealt with the later childhood levels.

Scientific data relating to the reactions of pre-school and primary levels to ethical conduct and ethical judgment are limited. In fact, the entire question of conduct has received much less attention than other problems of early childhood.

The study by A. M Carmichael is based upon description of the child's behavior by parents, teachers or others who were in a position to observe the child.[7] Intentional misrepresentation of facts was found in connection, in most cases, with an explanation, that was demanded of the child. The observation method has given way to scientific handling of data. The major criticism of this study centers about the unknown reliability of the measures used. Unless observation is made by competent examiners and in an objective manner, the result is that a large proportion of such data may be accumulated errors.

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7. Carmichael, Albert M.; To What Objective Stimuli Do Six-Year children Respond with Intentional Misrepresentation of Facts? Ped. Sem. and Jr. of Genetic Psychol. 35; 73-83, March, 1928.

Dearborn reviewed from questions, a survey of children's ideas of honesty.[8] She concludes that the lying situations are most readily recognized by the child, that stealing, cheating and withholding confession are too complicated for the children of the Third and Fourth grades. Variations in regard to honesty depends upon age, circumstances and viewpoint. Lying is a serious offense according to the child, but other phases of dishonesty are more serious to adults than to the child.

There are two major criticisms of this study:

(1) Questions dealing with behavior situations are largely answered in regard to the expected answer and can not be relied upon as real indication of ethical knowledge.

(2) The questionnaire method may involve unknown concepts, the answers being largely guesses by the children.

Woodrow and Bemmels conclude that they find that pre-school children possess a ratable general character.[9] The study was made with the use of questions; a box of candy was offered to those who answered most of them.

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8. Dearborn, Frances R.; What Does Honesty Mean to the Third and Fourth grade Children? Jour. of Educ. Method. 6; 205-212, Jan. 1927.

9. Woodrow, H. and Bemmels V.; Overstatement as a Test of General Character in Pre-school Children. Jour. of Educ. Psychol. 1927, 18, 239-246.

These answers were checked upon later to find the degree of overstatement. Criticism of the technique as well as the conclusion seems to be, that the specific situation and test results should not be generalized to include general character.

The criticism of this study is based upon two fallacious assumptions; namely, (1) that children's answers to questions working for reward for largest numbers answered, is a valid measure of character; (2) that the answers of specific questions are generalized by children.

The techniques used by Dearborn and by Woodrow and Bemmels, dealing with questions for the lower levels of testing do not seem adequate for either the child or for the basis of scientific analysis. Learned verbal responses are not indicative of behavior.

## CHAPTER III.

### Explanation of Procedure

This study starts with the assumption that ethical conduct in its relations to judgment, intelligence, age and amount of schooling is one of the outstanding problems in the program of progressive education.

With such an assumption, it follows that some means of measurement is needed. Tests of intelligence are available. Age and amount of schooling may be adequately measured. It was the necessary preliminary to this study, to construct two tests, one for conduct and one for judgment.

The scientific administration of a test requires that all variables except that of the child's response to a test situation should be carefully controlled. Rigid adherence to the exact form of giving a test does not always make for good testing technique with young children; but neither does modification of the methods to the extent of increasing or decreasing the difficulty of performance. Ease and confidence in a test situation are necessary in order to secure the greatest cooperation and response from the child. Free conversation about test materials which in no way affects the difficulty of the performance, interspersed with the memorized set of speeches so given that they do not sound like set speeches, produces the most favorable results. Consequently, in the directions

for the present test, care was taken not to insist upon a definite way of saying the directions when that seemed unimportant. It is intended that the emphasis at all times be upon the test objective rather than upon a mechanical presentation. Any test for the pre-school child requires a technique of administration and a plan of test organization different than those used with older children and adults.

Unless an objective interest and a genuine pleasure in the test (game) is maintained and a complete rapport is established between the examiner and participants in the game, the test will not be successful. The ever-varying personality of the children requires much adaptability on the part of the examiner.

The method of giving the test is determined largely by the familiarity the child has with the test materials. For the pre-school child much conversation and handling of the objects is permitted, keeping in mind the object of the game, as a conduct test and not a learning process.

The purposes which were considered in the construction of the tests were:

1. To construct a scale that would serve as a substitute for individual tests.
2. To arrange for a minimum of apparatus.
3. To save time by giving the test to a group of children in one school period.

4. To require little instruction from the teacher.

5. To hold the attention and interest of the children.

6. To provide motivation that corresponds to actual situations of life.

The directions were written in simple, clear language comprehensible to the children. The examiner suggested that games would be played in which all of the children would take part together. Praise was given unsparingly. In all cases it was ascertained whether each child understood each direction and how to proceed with the test and the scoring.

The conduct test employed four varying techniques, each of which consists of one test containing several subdivisions. These different elements give the opportunity to test behavior over a period of prolonged attention. In each of these tests the factor of honesty enters. Two tests are concerned with the correcting of a paper from a model form, presenting the opportunity to the child to alter the original figures, thereby cheating. The other two tests relate to carrying out of a promise.

## Ethical Judgment Test.

No test of ethical judgment for pre-school group has yet been devised, therefore, part of the author's task was concerned with devising an experimental technique with which to measure ethical judgment.

Four tests were constructed with the aim of recording the child's judgments in regard to situations dealing with honesty under the phases of cheating, keeping a promise and stealing. Three divisions of the first tests were given, five divisions of the second, and third, and seven divisions of the fourth test were provided. Each test provided for judgment response in each phase of honesty.

The examiner's first task is to win the confidence and interest of the child. Therefore, the Story Test was placed at the beginning of the series of tests. The aim of this test was to give the subject a chance to become acquainted with the surroundings and the examiner in the impersonal way of the story. The particular stories were selected to bring out the judgments of a lying, cheating and stealing situation.

### Ethical Judgment Test Number I.

### Story Test.

"I am going to read some stories and when I am through I want you to tell me if it was a good or bad story and why it

was that kind of a story. Listen carefully and tell me why it was a good or a bad story."

1. The Poplar Tree used to have wide spreading branches that made a nice shade. They were proud of their broad arms. One night a robber stole the fairies' gold and hid it under the branches of the poplar trees. Early the next morning, the fairies told Mother Nature that someone had stolen their gold. She asked West Wind to help find it. West Wind went to the woods and asked the trees if they had seen a robber. They all answered "No". So West Wind hunted through all the trees. She found the gold under the branches of the poplar tree.

When Mother Nature heard of it, she said that the Poplar trees would have to grow with their branches over their heads, which they do to this day.

2. The Old Lion. There was once a lion who was so old that he couldn't go for food to keep himself alive. He said, "I will keep still in my den and say I am sick." Soon the other animals came to see him. But as soon as they came near, he ate them up. One day a fox came along. "How are you to-day, Mr. Lion?" he said, but he did not go near the den. "I am very sick," said the lion. "Please come in. I like to see my friends."

"Thank you," said the fox, "but I think I will not go in." "Why not?" asked the lion. "Because all the footmarks point

to the den, but none point away from it," said the fox. Then he went away. The old lion did not have fox for dinner that day.

3. Uncle Billy Possum. Uncle Billy Possum was hungry and wanted an egg, so he slipped inside the hen-house without being seen. The nests were full of eggs and Uncle Billy Possum was having a good supper when the door opened and Farmer Brown's boy stepped in to gather the eggs. There was no time to run, so Uncle Billy dropped right down as if he were dead.

Farmer Brown's boy had never seen Uncle Billy before. "Well, he certainly is dead," said the boy, turning Uncle Billy over with the toe of one foot. Then he saw the egg on Uncle Billy's lips. "Ho, Ho," shouted Farmer Brown's boy. So you are the thief who has been stealing my eggs! And he picked Uncle Billy up by the tail and took him to the house.

What's the Thing for You to Do? Test Number II.

This test was suggested by comprehension questions of the Binet test. The aim of the questions is to determine whether the child can understand the ethical situation suggested and give an adequate reply.

Procedure: After getting the child's attention, say, "What's the thing for you to do?"

Test Number II.

1. If you found a pocket-book full of money?

2. If you saw your playmate break a window and the owner of the house asked you who did it?
3. If you got on the bus when it was crowded and the driver doesn't see you?
4. If your mother gave you five cents for bread and in a hurry the grocer gave you the bread and the five cents both?
5. If you were playing with a tire, rolling it, and broke down your neighbor's flowers?

The recognitions tests of 1, 2, and 3 aim to discover how far pupils can make a correct classification of situations and responses involving three different forms of behavior: Cheating, promising and stealing. Relatively simple acts are chosen, and the subject is asked to state reactions to the situation presented.

Something Wrong Test. Number III.

The detection of something wrong calls for a response that identifies the situation and the unethical conduct.

Procedure: I am going to read a sentence that has something wrong in it. I want you to listen carefully and tell me what is wrong about it.

1. A girl said, "I never told when I broke my playmate's toy." What's wrong about that?

2. A big boy said, "I always keep everything that I find." What's wrong about that?
3. Yesterday, the policeman saw some boys stealing apples in the market. A little girl was watching them, the policeman asked her and she said that she didn't see them. What's wrong about that?
4. The groceryman gave a girl too much money in change. She kept it because she said that the grocer wouldn't miss it. What's wrong about that?
5. A boy squeezed into the movie in a crowd and kept his nickel. What's wrong about that?

Vocabulary Test. Number IV.

The vocabulary test was derived by selecting words that dealt with the three phases of honesty.

The aim of this test was to provide a scale with which to measure the consistency of ethical judgment. Enough words were included to make the total tests of judgments consist of twenty items. Scoring was arbitrarily right or wrong in each item of the various tests.

Procedure: Say to the child, "I want to find out how many words you know. When I say a word you tell me what it means."

What does.....mean?

1. Cheat....

2. Honest...

3. Liar.....

4. Steal....

5. Truth....

6. Thief....

7. Promise..

## Ethical Conduct Test.

### Geometrical Figures and Numbers. Test Number I.

The aim of this test was to provide opportunity for the child to change his work after the model was presented.

The materials used in giving the test were: Blanks and pencils. The blanks were folded in such a manner that the carbon device was not known to the children. Space was provided for making the forms and numbers, also the model for scoring, the back of which was used for the name, age and grade of the child. This technique was adapted from the study of Tuttle.

The scoring was very simple, requiring about two minutes. The items were scored either right or wrong on the basis of adult judgment, reducing the scoring to a mechanical basis. This form will be found in Appendix A, I.

Procedure.

"Now boys and girls, we are going to play a kind of game. We are going to do something on the front of these papers which I am giving to each of you. (Examiner passes folded papers) Just leave the papers as they are placed on your desk, until we are all ready.

"Now everyone has a paper, hasn't he? We're all ready to begin our game. We're going to play this game together. We must watch carefully, listen to everything I say and then we'll

all do the things together, all at the same time.

Geometrical Figures and Numbers.

(a) Item 1. Draw a circle.

Procedure: "See the lines on the paper. Now on the first line at the top of the paper, I want everyone to draw a circle.

(b) Item 2. Draw a square.

Procedure: "All right. That's fine. Now, look at the next line. Draw a square on that line.

(c) Item 3. Draw a triangle.

Procedure: "Good. That's fine. Now put your pencil on the next line. Darw a triangle on that line."

(d) Item 4. Make the number o-n-e.

Procedure: "Good. Now on the next line everybody make the number one."

(e) Item 5. Make number 2.

Procedure: "Good. On the next line make number 2."

(f) Item 6. Write number 3.

Procedure: "That's very good. On the next line make the number 3.

(g) Item 7. Write 124.

Procedure: "That's fine. Now everybody listen. On the next line write 124.

(h) Item 8. Write 803.

Procedure: "That's very good. Now listen, on the next line write 803.

(i) Item 9. Write 1425.

Procedure: "Fine. That's very good. Now, on the next line write 1425.

(j) Item 10. Write 8076.

Procedure: "That's fine. Now here we are to the last line. Listen, on the last line write 8076. Well, that was too much for us, wasn't it? But never mind. Now our lines are full, there is something written on each line. I have a surprise for you. Let's all turn the page we wrote on flat on the desk see! There's another page. Let's open that page. Now look, there are the numbers just as I gave them to you. Now turn back the page you wrote on. Listen. I want to see how well each of you can correct his own work.

Let's look at the top line. If you made a good circle that looks like the pattern circle, don't mark it. If your circle is not a good one put an x by it. If the square is bad, put an x by it. If any of your numbers are wrong put an x by them. Do you understand? Now, I want each of you to correct his own papers. I'm going to write the names on the board of those who have the most right.

That's just fine. Now turn your page over and on the back write your own name. (The kindergarten children will receive help in this.)

That's very good. Now I will take them. (Write names on board as children report how many they missed.

Sorting Colors. Test Number II.

The aim of the sorting colors test was to see if the child would continue in an uninteresting task after he had promised to complete the work before pursuing an interesting task.

Material for the test included an outlined picture, box of crayons, one large envelope, six smaller envelopes each with a different color on it, and 50 small pieces of paper of the six different colors. The colors were to be sorted and placed in the envelope with the corresponding color.

The picture to color was a Sunbonnet Baby for the girls and an Overall Boy for the boys. (Appendix A, 2)

Scoring on this test could not be arbitrary in the kindergartens and for children not attending school. In these cases, long tables were used and the small colored papers became mixed. The assistant and examiner checked on each child to see if he was satisfied that all of his papers were sorted correctly before he began to color.

However, there was no partial score; it remained either right or wrong. In cases in which no attempt was made to sort colors, but merely put into the envelopes, the score was wrong as in cases where the children either destroyed or hid part of the colored papers in order to be able to color the picture.

Procedure: "Listen hard now, boys and girls. Everyone listen to what I say. We are going to play another game. There are two parts to this game, and we want to get it just right. Let's leave the things just as they are placed on the desk, until we are all ready. (Examiner passes colored circles, envelopes and picture to color.) Each of you put your colored crayons on the desk. Thank you. On one side of your desk is a pile of circles with the colors all mixed up. Will you sort them our for me? See the envelopes, I want the red circles in the envelope that has a red circle on it, the blue circles in the blue envelope. Each color has its own envelope. Do you understand? Now this is the second part of the game. After you sort out all of the colors you may color the picture, that I put on the desk. Can you fix all of the circles before you color the picture? Can you? Can you? (Ask every member of the class, so that each will understand just what is expected of him.)

Now we are all ready. I am going to put the best colored pictures on the board. You may begin now. (Let the children work with no supervision.)

"Thank you very much. I'll have the colored envelopes first. Now I'll take the pictures. "O, yes, are your names on your pictures? Let's write our names on the side of the picture. That's very good."

Completion Picture Test. Number III.

This test employed a variation of the technique used in Conduct Test number I. Instead of geometric figures and numbers, incomplete pictures were used. (Appendix A, 3)

The aim was to present the second opportunity to cheat in correcting papers from a model. The materials used were: Pencils and folded papers similar to papers used in Test I, but on green paper to offer variety of material.

Scoring was right where nothing was added after the form was presented, and wrong, if any erasures or additions were made.

(a) Checking drawings for missing parts.

Procedure: "Now, we are going to do something different with these green papers. (Pass papers) Let's leave these just as they are placed on your desk, please. There, each one has a paper. On the first page we see many pictures. This time, boys and girls, we have to look closely at each picture. There is something the matter with every single one of them. Something has been left out of each picture. I want you to draw the part that has been left out of the picture. Let's look at the first picture. See, part of the square is gone. Draw in that part of the square. Look at each picture, find out what is left out and draw it in. Do you understand? You may begin. (Scoring time 2 minutes.)

That's fine. Now let's turn the right page back. See,

there is the whole picture. Now turn back the page you wrote on. Listen, I want you to put an x by all of your pictures that are wrong. I want to see how well you can correct your own papers. Do you understand? (Instructions may be repeated.) I will put the names on the board of those who made the best pictures."

Candy and Story Test. Test Number IV.

The purpose of the test was to determine the honesty of the children by providing them with the opportunity to eat candy, after they had promised they would first listen to a story.

Materials used were three pieces of candy placed on a paper doily for each.

Procedure: "Now boys and girls, you have worked well and I am going to give you a treat. This candy is for you, but I ask that you leave it on your desk until we have finished for to-day. If everyone is eating candy it bothers others in hearing the story. Can you leave it alone until we have finished the story? Can you? Can you?" The candy remained on the desk for 7 minutes, while a story was read,(Bremen Town Musicians,) after reading for 3 minutes, the reader left the room for 2 minutes, then returned to finish the story in 2 minutes. At the end of each period, an observer scored the number of pieces of candy eaten during the period. Any eating of candy was scored as wrong.

## Reliability of the Tests.

Difficult as are the tasks of gathering data in such a way as to guarantee statistical reliability, this study is all dependent upon the much more difficult task of constructing tests and measuring units that will have uniformity of application and be objective and impersonal.

The usual method of determining the reliability of the test is to compute the coefficient of correlation between two sets of scores from the application of two similar tests. However, since only the one judgment test was given, the reliability was determined by correlating the odd-numbered items against the even numbered items. Such a correlation was found to be. $.67 \pm .04$.

Since the self-correlation of the test seemed relatively low, Spearman's formula was used to determine the length of a test that would be needed for a correlation of .90. It was found that 10 such measures equal in reliability to the reliability of the original test would be needed. Ten such measures would make 100 similar items.

In order to find the reliability of the conduct test, two correlations were computed. One correlated the 'promise' scores and 'cheat' scores, which yielded a correlation of $.36 \pm .06$. As in all other cases the correlation must be interpreted in the light of the total range of ability of the children tested and

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10. Garret, H. E. Statistics in Psychology and Education, p. 153. Longmans, Green & Co., 55 Fifth Ave., N.Y.-1926.
11. Ibid., p. 269.

the variability within the array of the conduct tests themselves.

The low correlation may be due to a real lack of relationship of conduct habits. Each may be a specific and separate habit, and altho we use the term "honesty" to include both, they may be independent habits bearing little or no relation to each other for situations in childhood.

Normal motivation was supplied in each of the conduct tests, there was no hint of social disapproval, no suspicion that conduct was being observed or considered. Therefore, the response was assumed to be the result of possession or lack of inhibition of habits established from social contacts.

The Brown-Spearman formula, based on stable factors, does not apply to the honesty tests due to the nature of conduct. The prophesy is based on the assumption that the tests are approximately equivalent in difficulty and content and that there is a fixed intellectual capacity.

Since it has been found that intelligence is not closely related to conduct, the assumptions of the formula are not applicable to correlations of conduct. Conduct appears to be specific rather than general and is the response to the demands of the situation rather than to principles of ideals.

In presenting this account of our experiment we are under no illusion as to its imperfections. It seems worth presenting, not because it constitutes in any respect a model, or pictures

conditions which can be considered ideal, but because it tells a real experience of actual conduct.

The imperfections are only too apparent. To carry out ideally such a piece of work as that reported here one should have facilities for recording behavior of each child over a long period of time and in many situations. Our actual resources of time and equipment fell far short of the ideal.

# CHAPTER IV.

## Analysis of Data.

In the present chapter we shall describe in detail the results of our experiments, as well as those phases of technique which have not already been presented but which have a direct bearing on the interpretation of results.

### Relationships of Factors Dealing with conduct.

Many questions of both theoretical and practical importance center about the problem of conduct of children in relation to native ability, chronological age, mental age, and amount of schooling. In the present chapter we shall discuss tendencies toward ethical conduct as shown by results of the tests described in Chapter III.

A study of improvement in conduct and reactions to normal situations immediately raises certain important questions.

1. Does right conduct improve with advanced chronological age?
2. Does the improvement keep pace with increases in mental age?
3. Is right conduct more frequently associated with a high I Q?
4. What is the effect of the amount of schooling on conduct?

5. Does right conduct accompany the attainment of ethical judgment?
6. Do ethical judgments improve with C A?
7. Do ethical judgments improve with increased M A?
8. Are ethical judgments superior for those with with a high I Q?
9. What is the effect of amount of schooling on ethical judgments?

These questions will form the outline for comparison of relationships as revealed by a study of the data derived from the three tests; namely, (1) intelligence test, (2) judgment, and (3) conduct test.

## The Administration of the Tests.

The Stanford Revision of the Binet Intelligence Scale was given to one hundred and thirty-two pupils attending the public schools and private kindergartens, and pre-school children. The three public schools of Eugene, Francis Willard, Condon and Edison and the kindergartens of Mrs. Jackson, Miss Thompson, and Mrs. Burch of Springfield, cooperated. Fourteen pre-school children not attending kindergarten were also included in the tests. The mental testing was performed within the school buildings, in a room free of all children except the subject. The pre-school children were tested in their own homes free from interruption.

An effort was made to give the tests as much of an atmosphere of play and pleasure as possible.

The Ethical Judgment test was given to 129 children including the original groups of children in January and February. The Conduct tests were administered in March and April to 124 pupils. A few of these cases were disregarded in working up the results for the relationships; only those pupils who were given the three tests were counted. These cases are explained by the fact that several of the pupils moved away in the interval between tests; others were ill at the time of the follow-up tests.

## Sources of Data.

The subjects were drawn from four sources. Table I. indicates how they were distributed among these sources, in regard to C A, M A, and I Q, and amount of schooling.

The facts presented in Table I., form the heart of this study. In the discussions to be offered in the following chapters frequent reference may be made to the data presented here. Since this is true, and since the Table is self-explanatory, it is unnecessary to comment on them, except to direct the readers special attention to several points in this connection. Pre-school refers to the fact that the children are at present not attending either kindergarten or school, regardless of the fact that they may have attended.

TABLE I.

Distribution of Cases by C A, M A, I Q, and Grade.

| No. | C A | M A | I Q | Grade |
|---|---|---|---|---|
| 1 | 4-1 | 4-0 | 97 | Kindergarten |
| 2 | 4-1 | 3-8 | 90 | " |
| 3 | 4-1 | 5-6 | 128 | Pre-school |
| 4 | 4-1 | 5-4 | 130 | " |
| 5 | 4-1 | 5-0 | 122 | Kindergarten |
| 6 | 4-2 | 4-2 | 100 | Pre-school |
| 7 | 4-2 | 4-2 | 100 | " |
| 8 | 4-2 | 4-6 | 108 | " |
| 9 | 4-2 | 6-2 | 148 | Kindergarten |
| 10 | 4-3 | 5-0 | 118 | Pre-school |
| 11 | 4-3 | 5-2 | 124 | Kindergarten |
| 12 | 4-4 | 3-8 | 85 | " |
| 13 | 4-5 | 5-10 | 132 | " |
| 14 | 4-6 | 5-2 | 116 | " |
| 15 | 4-7 | 6-6 | 141 | Pre-school |
| 16 | 4-8 | 6-10 | 146 | " |
| 17 | 4-8 | 5-10 | 125 | " |
| 18 | 4-8 | 5-10 | 125 | Kindergarten |
| 19 | 4-8 | 6-6 | 139 | " |
| 20 | 4-8 | 6-2 | 132 | " |

TABLE I. (continued)

Distribution of Cases by C A, M A, I Q, and Grade.

| No. | C A | M A | I Q | Grade |
|---|---|---|---|---|
| 21. | 4-8 | 5-2 | 110 | Kindergarten |
| 22 | 4-9 | 5-8 | 119 | Pre-school |
| 23 | 4-9 | 5-4 | 112 | " |
| 24 | 4-9 | 6-0 | 125 | Kindergarten |
| 25 | 4-9 | 5-4 | 112 | " |
| 26 | 4-10 | 6-8 | 138 | Pre-school |
| 27 | 4-10 | 6-6 | 134 | Kindergarten |
| 28 | 4-11 | 6-4 | 128 | Pre-school |
| 29 | 4-11 | 5-10 | 118 | Kindergarten |
| 30 | 4-11 | 5-8 | 115 | " |
| 31 | 4-11 | 5-8 | 115 | Pre-school |
| 32 | 5-0 | 5-9 | 115 | Kindergarten |
| 33 | 5-1 | 5-2 | 101 | " |
| 34 | 5-1 | 6-2 | 121 | " |
| 35 | 5-2 | 6-0 | 112 | " |
| 36 | 5-2 | 6-9 | 130 | " |
| 37 | 5-3 | 7-4 | 139 | " |
| 38 | 5-3 | 5-8 | 109 | " |
| 39 | 5-4 | 5-8 | 106 | " |
| 40 | 5-4 | 6-6 | 121 | " |

TABLE I. (continued)

Distribution of Cases by C A, M A, I Q, and Grade.

| No. | C A | M A | I Q | Grade |
|---|---|---|---|---|
| 41 | 5-4 | 7-8 | 144 | Kindergarten |
| 42 | 5-5 | 7-2 | 132 | " |
| 43 | 5-5 | 6-6 | 120 | " |
| 44 | 5-6 | 5-4 | 97 | " |
| 45 | 5-7 | 6-10 | 122 | " |
| 46 | 5-7 | 5-2 | 93 | " |
| 47 | 5-7 | 5-9 | 103 | " |
| 48 | 5-7 | 6-2 | 110 | " |
| 49 | 5-7 | 7-0 | 125 | " |
| 50 | 5-8 | 7-4 | 129 | " |
| 51 | 5-8 | 7-0 | 124 | " |
| 52 | 5-8 | 7-10 | 137 | " |
| 53 | 5-9 | 6-6 | 113 | 1st Grade |
| 54 | 5-9 | 6-6 | 113 | " " |
| 55 | 5-9 | 7-0 | 120 | Kindergarten |
| 56 | 5-10 | 6-6 | 111 | " |
| 57 | 5-10 | 7-6 | 128 | 1st Grade |
| 58 | 5-10 | 7-0 | 120 | Kindergarten |
| 59 | 6-0 | 7-8 | 128 | 1st Grade |
| 60 | 6-0 | 7-6 | 123 | " " |

TABLE I. (continued)

Distribution of Cases by C A, M A, I Q, and Grade.

| No. | C A | M A | I Q | Grade |
|---|---|---|---|---|
| 61 | 6-0 | 6-4 | 105 | 1st Grade |
| 62 | 6-0 | 7-2 | 119 | " " |
| 63 | 6-1 | 6-7 | 108 | " " |
| 64 | 6-1 | 7-2 | 117 | " " |
| 65 | 6-1 | 7-4 | 120 | " " |
| 66 | 6-1 | 7-2 | 117 | Kindergarten |
| 67 | 6-2 | 7-0 | 113 | 1st Grade |
| 68 | 6-2 | 7-10 | 127 | " " |
| 69 | 6-3 | 8-2 | 130 | " " |
| 70 | 6-3 | 7-2 | 114 | " " |
| 71 | 6-3 | 7-0 | 112 | " " |
| 72 | 6-4 | 7-5 | 117 | " " |
| 73 | 6-4 | 7-0 | 110 | " " |
| 74 | 6-4 | 7-4 | 115 | " " |
| 75 | 6-5 | 5-10 | 91 | " " |
| 76 | 6-5 | 8-3 | 128 | " " |
| 77 | 6-5 | 6-7 | 103 | " " |
| 78 | 6-6 | 6-5 | 98 | " " |
| 79 | 6-7 | 6-6 | 98 | " " |
| 80 | 6-7 | 7-10 | 119 | " " |

TABLE I. (continued)

Distribution of Cases by C A, M A, I Q, and Grade.

| No. | C A | M A | I Q | Grade |
|---|---|---|---|---|
| 81 | 6-7 | 7-0 | 106 | 1st Grade |
| 82 | 6-8 | 6-0 | 90 | " " |
| 83 | 6-8 | 6-8 | 100 | " " |
| 84 | 6-8 | 7-9 | 116 | " " |
| 85 | 6-8 | 5-10 | 88 | " " |
| 86 | 6-9 | 7-4 | 109 | " " |
| 87 | 6-9 | 7-4 | 109 | " " |
| 88. | 6-9 | 7-6 | 111 | " " |
| 89 | 6-9 | 7-8 | 113 | " " |
| 90 | 6-10 | 7-0 | 102 | " " |
| 91 | 6-10 | 7-4 | 107 | " " |
| 92 | 6-10 | 7-2 | 104 | " " |
| 93 | 6-10 | 7-0 | 102 | " " |
| 94 | 6-11 | 8-6 | 122 | " " |
| 95 | 6-11 | 7-6 | 108 | " " |
| 96 | 7-0 | 7-6 | 107 | 2nd Grade |
| 97 | 7-0 | 7-1 | 101 | 1st " |
| 98 | 7-0 | 8-6 | 121 | " " |
| 99 | 7-0 | 6-10 | 97 | " " |
| 100 | 7-0 | 8-2 | 117 | " " |

TABLE I. (continued)

Distribution of Cases by C A, M A, I Q, and Grade.

| No. | C A | M A | I Q | Grade |
|---|---|---|---|---|
| 101 | 7-1 | 7-4 | 104 | 1st Grade |
| 102 | 7-1 | 7-4 | 104 | " " |
| 103 | 7-1 | 8-4 | 118 | 2nd " |
| 104 | 7-2 | 8-8 | 121 | " " |
| 105 | 7-2 | 7-10 | 109 | 1st " |
| 106 | 7-3 | 7-10 | 108 | " " |
| 107 | 7-3 | 9-0 | 124 | 2nd " |
| 108 | 7-2 | 8-6 | 117 | " " |
| 109 | 7-4 | 6-2 | 84 | 1st " |
| 110 | 7-5 | 7-6 | 101 | " " |
| 111 | 7-7 | 7-7 | 100 | 2nd " |
| 112 | 7-7 | 7-6 | 99 | " " |
| 113 | 7-7 | 7-6 | 99 | 1st " |
| 114 | 7-8 | 7-2 | 93 | " " |
| 115 | 7-8 | 7-2 | 93 | " " |
| 116 | 7-9 | 6-8 | 87 | " " |
| 117 | 7-9 | 6-1 | 80 | " " |
| 118 | 7-10 | 6-8 | 85 | " " |
| 119 | 7-10 | 9-6 | 121 | 2nd " |
| 120 | 7-10 | 8-0 | 102 | " " |

Kindergarten includes three schools, two in Eugene and one in Springfield.

First Grade includes three first grades of Eugene and there was no check made as to those children who might be repeating the grade. Likewise, second refers to the second grades of two schools and in this connection is regarded as meaning two years of school experience.

Table II. shows that 64 of the children tested attended public schools in Eugene, 42 in kindergarten in Eugene and Springfield, and the remaining 14 cases were attending no schools. The great majority of the last group were children whose mothers were in attendance at the pre-school group of A. U. W.

The kindergartens are private institutions where the children of only the more well-to-do families can afford to enroll. These schools are selective and since on the whole the children in them come from homes of superior economic standing, we would expect the general intellectual ability of the children to be above the normal.

The lowest age group is obviously not a fair sample of the total population of four-year children. They represent children above average ability. The age groups above these probably can be regarded as more typical samplings and as yielding more reliable results as we pass to the higher ages. Table III presents an analysis of population tested according to grade, mean M A, and mean I Q.

TABLE II.

Distribution of 120 Pupils by Age and Grades.

The children varied in chronological age from 4 years 0 months to 7 years 10 months.

31 were between 4 and 5 years.

27 " " 5 " 6 "

37 " " 6 " 7 "

25 " " 7 " 8 " making a total of 120.

10 have accomplished as much academic work as that prescribed for the 1st grade.

54 were in the 1st grade.

42 " " " Kindergarten.

14 " a pre-school group.

The I Q's of the test varied from 80 to 148.

Percentage Distribution of Cases by Age and Grade

| Age | Pre-school | Kindergarten | 1st. Grade | 2nd. Grde. |
|---|---|---|---|---|
| 4 | .45 | .55 | | |
| 5 | | .89 | .11 | |
| 6 | | .03 | .97 | |
| 7 | | | .60 | .40 |

TABLE III.

Analysis of Population Tested

| Years | Pre-school-Mean | | | Kindergarten-Mean | | | Public School-Mean | | |
|---|---|---|---|---|---|---|---|---|---|
| | No. Cases | M | A-I Q. | No. Cases | M | A-I Q | No. Cases | M | A-I Q. |
| 4 | 14 | 5-7 | 122 | 17 | 5-5 | 115 | | | |
| 5 | | | | 24 | 6-6 | 109 | 3 | 6-10 | 118 |
| 6 | | | | 1 | 7-2 | 117 | 36 | 7-5 | 110 |
| 7 | | | | | | | 25 | 7-7 | 103 |
| Totals & Means | 14 | 5-7 | 122 | 42 | 6-9 | 110 | 64 | 7-3 | 110 |

The results to be reported in this study are based on the testing of 144 cases by means of I Q, judgment and conduct tests. Of these, 21 were not completed because of lack of data for one test and 2 cases were older than the highest age group used in the general statistical treatment, and 1 was younger. One hundred and twenty cases completed the 3 tests and form the basis for the study.

It was the original intention to have age groups of 25 in each group, covering a range of six months, the total range extending from two and one-half to five and one-half years. It proved impracticable, however, to complete this number in the groups below 4 years, partly because a large number of children below and some above 4 years of age cannot satisfactorily be tested with a test of this kind involving a great deal of verbal work together with the use of color discrimination and of number symbols. All the testing with these levels is individual in character; the average length of time taken to test one case would work out in the three appointments close to one hour for the tests.

In every case the children were given the Stanford-Binet test, the judgment test and the conduct test. All of the intelligence and judgment tests were applied by the writer who was assisted in the conduct test by Mrs. Harold Allison, graduate in psychology and a thoroughly competent examiner.

The plan was to get a fair enough sampling of children at

each age to discover if possible trends in conduct for the various ages. For some purposes, we are more interested in the results of superior children.

The distribution of I Q's for the entire group is shown in the scattergram. Table IV.

More than half of the cases were rated between 105 and 125, I Q., which gives a preponderance of higher I Q's.

Here we have approximately 60% of the cases scoring between 105 and 125, which is one-forth of the entire range. In a normal frequency distribution, the middle 50% of the cases cover 23% of the range. This probably is due to the selective factor operating in the lower groups and to the school selected for study. A comparison of a normal distribution of the total population to the distribution of the cases studied is presented in Figure I. The distribution of frequencies of I Q's for the 4, 5, 6 and 7 year children is shown in Figures 2-5.

The I Q's for the 4-year-old children are spread out too much, showing in these ages a tendency toward abnormally wide range. However, the number at the upper limit is too small to be significant. The distribution for the 5-year-old children seems to fit the normal curve better than for the 4, 6 or 7 year-old children. This may be explained by the fact that the 5-year-old children were taken from private kindergartens, which seems to be a selective factor. The relationships between these year groups is given in Figure 6.

# TABLE IV.

## Scattergram of Distribution of I Q.

| | 80-84 | 85-89 | 90-94 | 95-99 | 100-104 | 105-109 | 110-114 | 115-119 | 120-124 | 125-129 | 130-134 | 135-139 | 140-144 | 145-149 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17 | | | | | | | | 1 | | | | | | |
| 16 | | | | | | | | 1 | 1 | | | | | |
| 15 | | | | | 1 | | | 1 | 1 | | | | | |
| 14 | | | | | 1 | | 1 | 1 | 1 | | | | | |
| 13 | | | | | 1 | 1 | 1 | 1 | 1 | | | | | |
| 12 | | | | | 1 | 1 | 1 | 1 | 1 | | | | | |
| 11 | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| 10 | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| 9 | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| 8 | | | | | 1 | 1 | 1 | 1 | 1 | 1 | | | | |
| 7 | | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| 6 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| 5 | | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | |
| 4 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 3 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | |
| 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

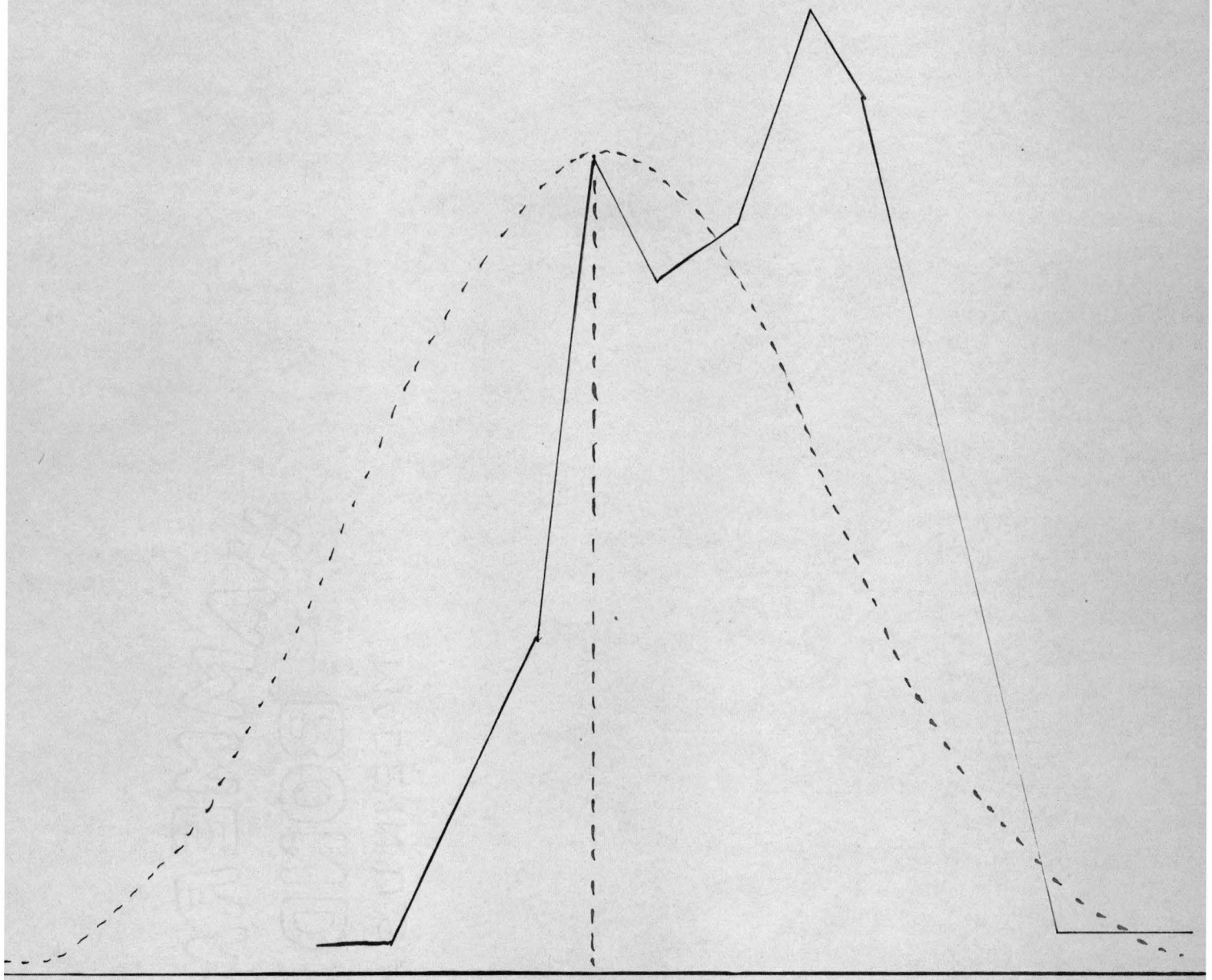


FIGURE 1.

Comparison of Population Tested With Normal Distribution of I Q's. (For TABLE IV)

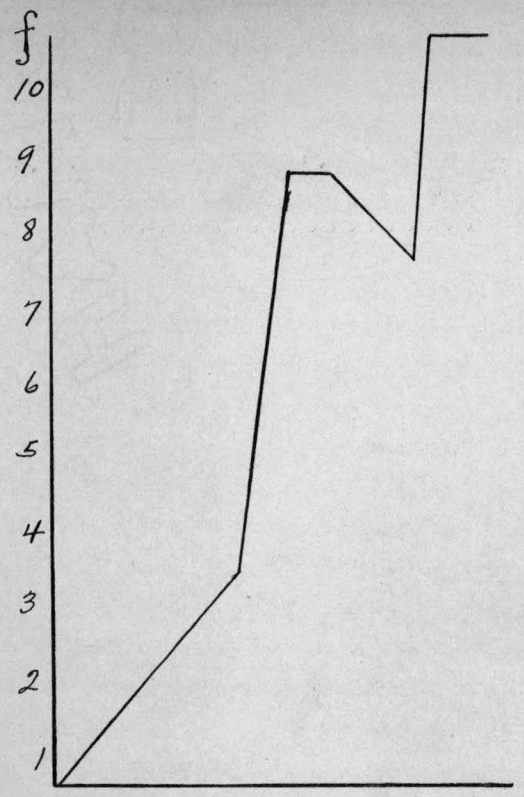



Figure 2.

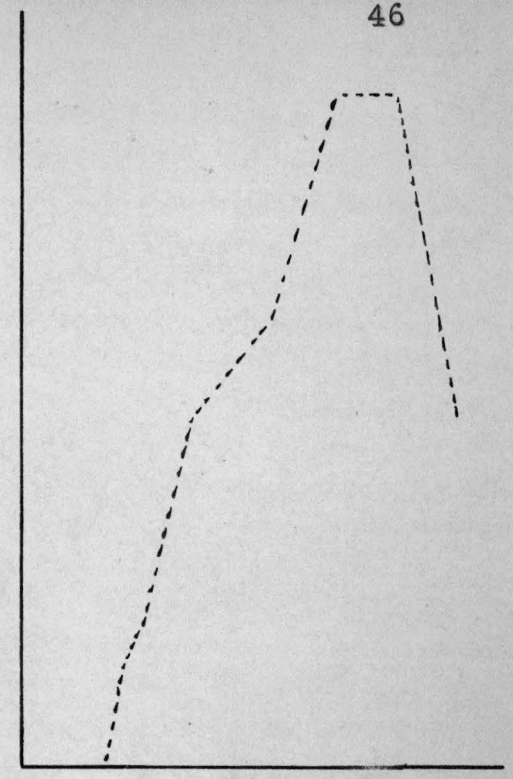


Figure 3.

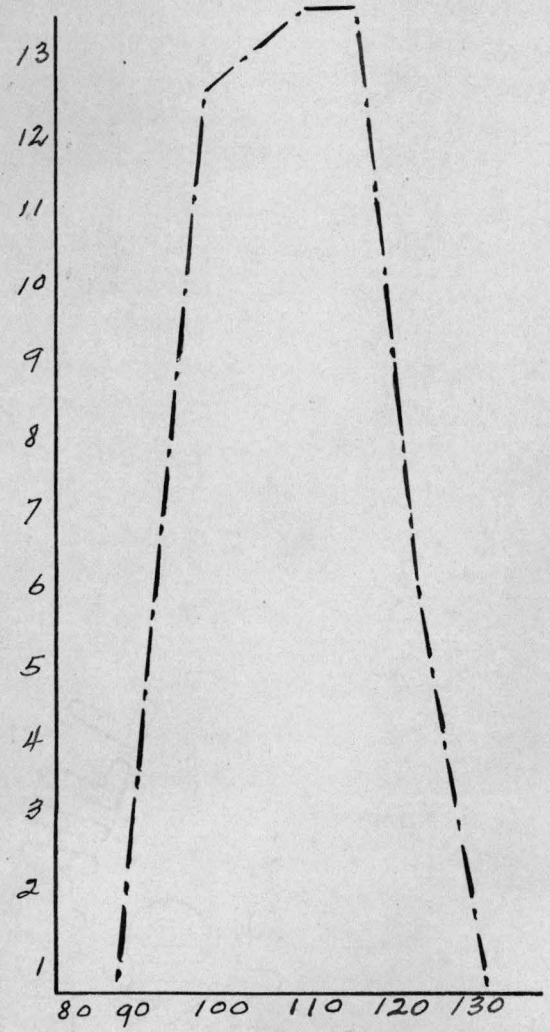



Figure 4.

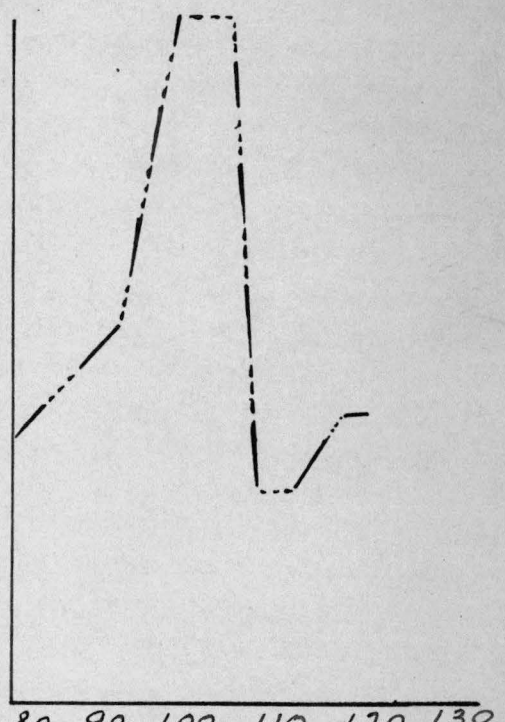



Figure 5.

FIGURES 2-5.

Frequencies of I Q's for

Each C A Level.

No. Cases.

4 Years. ———— 31
5 " - - - - - - - - 27
6 " —·— ·— 37
7 "

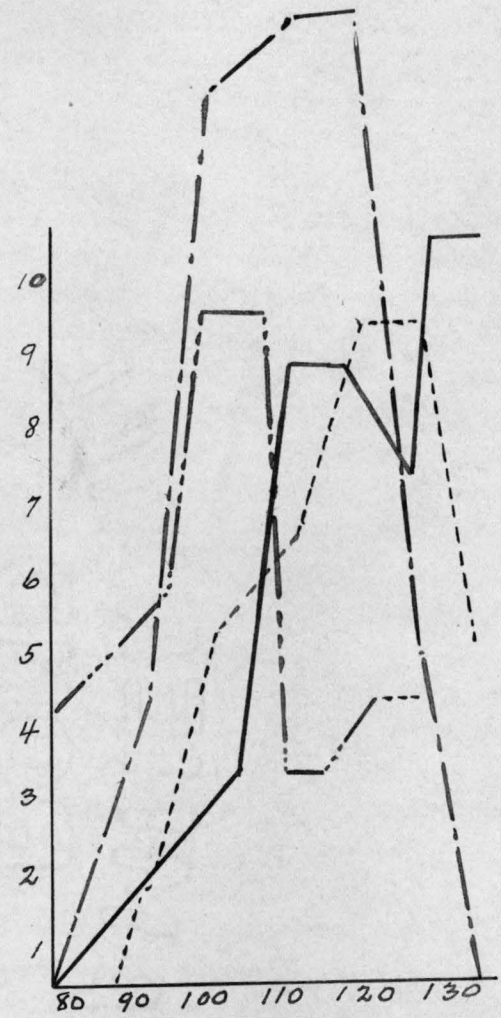



FIGURE 6.

Relationship of I Q's for 4, 5, 6 and 7 Year Levels.

(This FIGURE is a Composite of Fig. 2-5)

4 Years. ————
5 " .....
6 " —·—·—
7 " —··—···

Correlation Between I Q and Amount of Schooling.

$-.28 \quad \pm.06$

The correlation of — .28 between I Q and amount of schooling indicates the average I Q of the pre-school children tested was decidedly above that of the various school groups indicating that this particular group is not representative of pre-school children. This fact must be considered in the interpretation of the data.

FIGURE 2 and line ——— of FIGURE 6 picture the distribution of I Q's for 4 year-old children. In TABLE III, the mean I Q for 4 year-old children is seen to be 122. The mean I Q for all groups is 114.

The subjects tested were from homes of superior economic status.

# CHAPTER V.

## Discussion of Results.

The primary interest in undertaking this investigation lay in the attempt to discover what, if any, are the differences between the conduct of young and older groups of children with mental age ranging from inferior to very superior with varying amounts of school experience.

The basic question is: Are there fundamental and characteristic differences between the conduct of children of different school levels and intellect and age on the one hand, and judgments on the other? The problem that arises is: What is the nature of the differences between conduct and judgment of widely differing abilities.

In approaching the problem of ethical measurement the most immediate and likewise difficult problem is that of known and accepted criterion with which to compare the tests. The criterion may be highly inaccurate or expensive and still be valuable by giving us a uniform starting point. Due to the difficulty of securing the criterion, the tests themselves may in a measure supplant the criterion. The tests may serve later as a measure of the inaccuracy of the criterion.

The criterion used in this study is that of ethical conduct. With this as a point of departure, the following factors are measured in their relation to conduct; namely, chronological age,

mental age, intelligence quotient, amount of school and amount of ethical judgment as determined objectively by our tests.

The effectiveness of related factors is revealed in actual behavior in life situations. Ideals and standards and rules of conduct which the child sets up for himself are examined by the ethical conduct test used in this study.

The children were given four opportunities to respond to situations concerned with phases of honesty; two were situations that dealt with cheating and two dealt with keeping a promise.

## I. Relationships of Conduct.

### Relation of M A, C A, and I Q, to Conduct.

Results, reported in Table V., refer to the comparison of mental age, chronological and mean I Q's of those who were honest in each situation and those who failed in one or more of the conduct tests. Figure 7 graphically presents these data.

Examination of this table shows consistently increasing honesty with both mental age and C A. However, in the light of high I Q ratings the 4-year C A level are the ones with highest ratings and most unethical conduct.

This adds support to the belief that conduct, as measured by the tests, has little relationship with native intelligence or with age. However, any difference that does appear is taken into account.

TABLE V.

Relation of M A, C A and Mean I Q to Percentage of Honesty Scores.

| | Mental Age | | | | | Chronological Age | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Years | Honest | | Dishonest | | Mean I Q | Honest | | Dishonest | | Mean I Q. |
| | No. | % | No. | % | | No. | % | No. | % | |
| 3 | | | 2 | 100 | 87 | | | | | |
| 4 | | | 4 | 100 | 101 | 8 | .26 | 23 | .74 | 118 |
| 5 | 6 | .25 | 18 | .75 | 113 | 7 | .26 | 20 | .74 | 113 |
| 6 | 10 | .31 | 22 | .69 | 116 | 12 | .32 | 25 | .68 | 113 |
| 7 | 20 | .42 | 27 | .58 | 112 | 13 | .52 | 13 | .52 | 103 |
| 8 | 3 | .33 | 6 | .67 | 120 | | | | | |
| 9 | 1 | .50 | 1 | .50 | 120 | | | | | |
| Average | | .26 | | .74 | 109.8 | | .33 | | .67 | 111.7 |

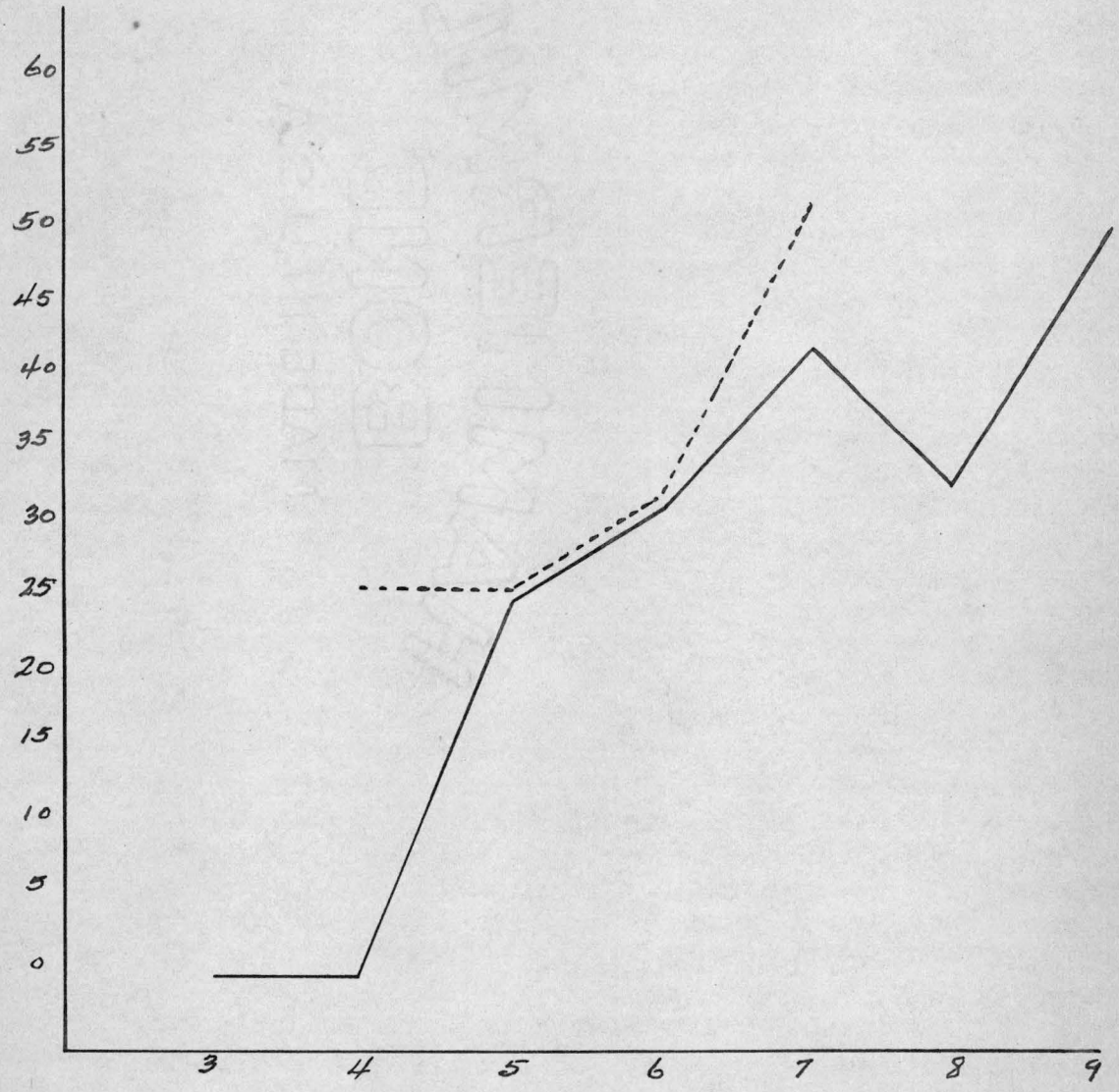



FIGURE 7.

Relation of M A and C A to % of Honesty Scores.

(For TABLE V)

M A ———
C A - - - - - - -

## I Q and Conduct.

An approach to the relation of honesty and various factors which might have a bearing on conduct raises the following questions: Is right conduct more common for high I Q's? What are the differences between the different levels of intelligence with reference to conduct as measured in this study? Is the difference merely one of conformity or non-conformity? In other words, are the bright distinguished from the dull in actual conduct situations?

Table VI shows that 5% of the group is retarded, 34% normal, 26% superior and 35% very superior according to I Q status.

So far as comparisons of superior, normal and retarded minds are concerned, it does appear that there are genuine differences in the conduct performances of very superior group. The few number of cases in the lower levels do not make a fair sampling of that group. Figure 8 graphically expresses Table VI. The percentage of all honest responses by the accelerated group points to a real difference. The numbers in the last three groups are large enough to be considered in a measure reliable.

The conclusion which is drawn from a comparison of Tables V and VI appears to be no definite dividing line drawn between the groups of varying abilities in responses to ethical judgment and conduct situations.

TABLE VI.

Relation of % of Correct Judgment Scores and % of Honesty Scores to I Q's.

| Status of I Q | No. Cases | % of Total | Judgment Average | % | Honest No. | % |
|---|---|---|---|---|---|---|
| Retarded (70-89) | 6 | 5 | 9 | 45 | 3 | 50 |
| Normal (90-109) | 41 | 34 | 13.27 | 66 | 12 | 29 |
| Superior (110-129) | 31 | 26 | 13 | 63 | 9 | 29 |
| Very Superior (130 and above) | 42 | 35 | 13 | 65 | 16 | 38 |
| Total | | 100 | | | 40 | 33 |

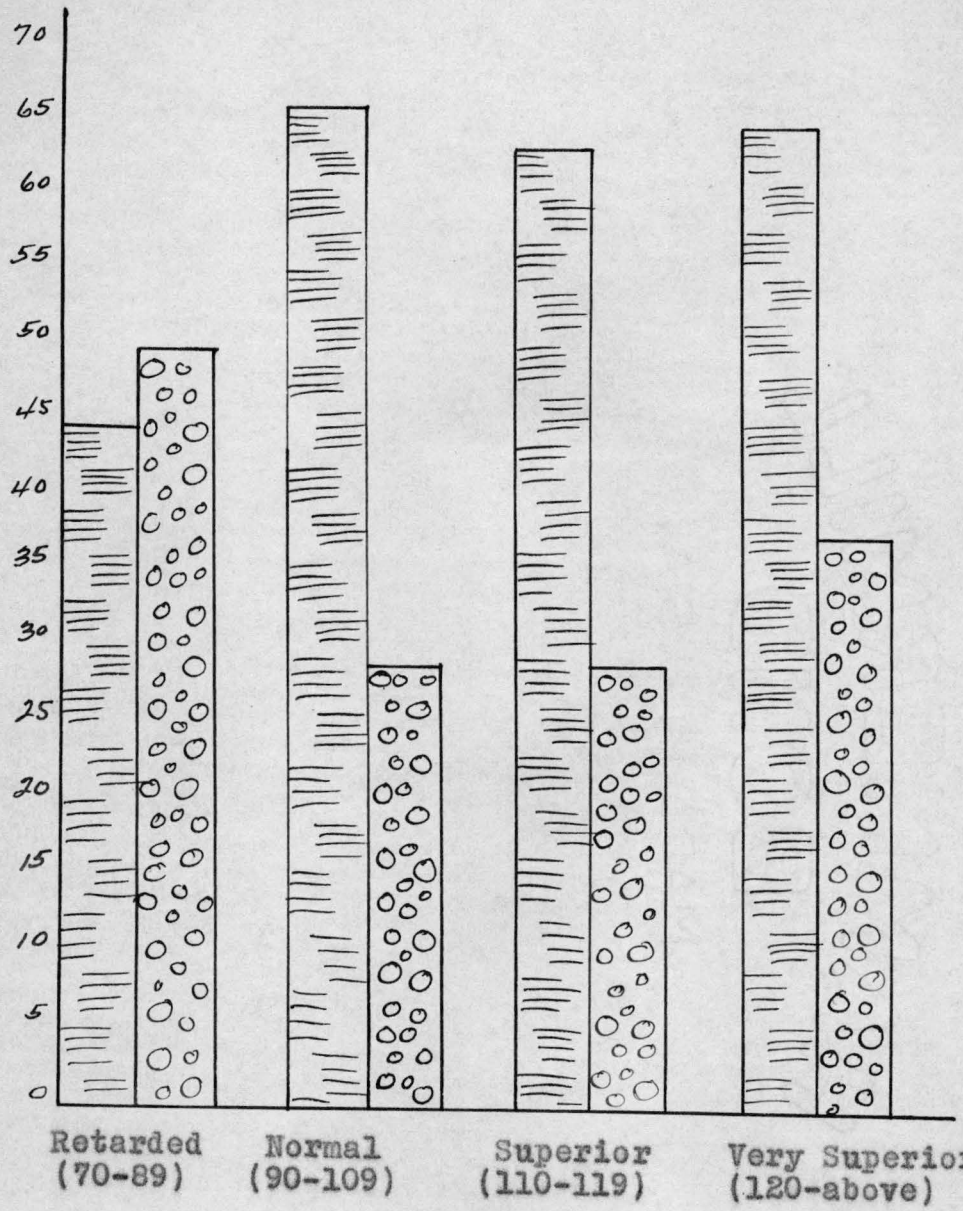



FIGURE 8.

Relation of % of Judgment Scores and % of Honesty Scores to I Q Status. (For Table VI)

Judgment Scores.

Conduct Scores.

## School and Conduct.

Before final conclusions are drawn regarding the relations of significant factors to the particular forms of honesty with which we have been dealing, another agent will be presented. Age and ability heretofore have been regarded apart from the group in which the tests were given. School children are grouped according to school achievement rather than to their age or mental maturity. So far as school populations are tested, the grade may be a more dominant factor of conduct than is age or native intelligence. The problem is to determine how the amount of schooling influence conduct.

Although the subjects tested were drawn from three kindergartens, three first grades, two second grades and pre-school group, the divisions here considered comprise all the children under four groupings: Pre-school, kindergarten, first grade and second grade.

The distributions of the amount of schooling in relation to conduct and to mean I Q is given in Table VII. The first and second groups are complimentary. The fact that the pre-school and second grade score higher in honesty than the kindergarten and first grade may be due to the small numbers in those groups. However, a comparison of the number of honest and dishonest children in each group, it is seen that more than one-half of the pre-school were dishonest, whereas, less than

one-half of the second grade group were dishonest.

The improvement in conduct from the kindergarten to the second grade may be interpreted to indicate, first, that the school influence is accumulative from year to year, and second, that ethical conduct as represented by our data is not a function of school training, and third, that the test measures social forces, which would not change to any marked extent with the child's advance in school.

So far, approximately 44% of children are found honest in a given situation. The honest groups are found among all classes of subjects; retarded, accelerated, younger and older groups, with none, one or two years of school. There is no definite line between ethical and unethical conduct, as found by an analysis of age, intelligence and years of schooling. The tendency toward improved conduct is found in two relationships; first, the very superior I Q group, and second, in the amount of schooling. Figure 9 graphically pictures the factors of conduct.

TABLE VII.

Relations of Amount of Schooling, Conduct and Mean I Q.

| | Honest | | Dishonest | | Total No. | Amount of School |
|---|---|---|---|---|---|---|
| | No. | % of Group | No. | % of Group | | Mean I Q. Honest--Dishonest |
| Pre-School | 5 | 35 | 9 | 65 | 14 | 125 119 |
| Kinder-garten | 9 | 21 | 33 | 79 | 42 | 129 114 |
| First Grade | 20 | 37 | 34 | 63 | 54 | 107 107 |
| Second Grade | 7 | 70 | 3 | 30 | 10 | 101 119 |
| Total | 41 | 41 | 79 | 59 | Average Mean I Q --- | 115.5 114.7 |

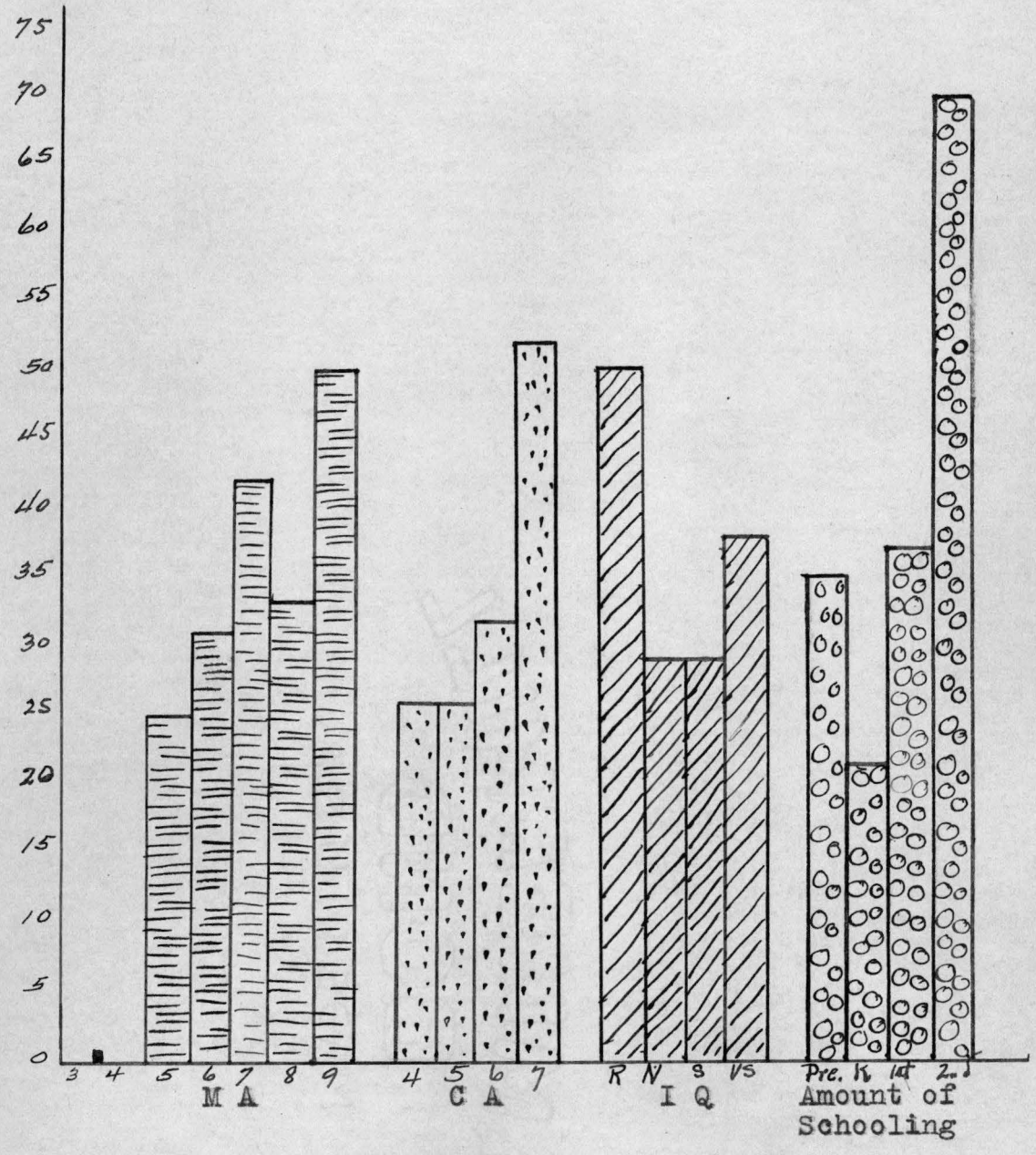



FIGURE 9.

Comparison of M A, C A, I Q and Amount of Schooling to % of Conduct Scores. (For TABLES V, VI and VII)

Quantitative Analysis of Data.

Correlations Between Conduct Scores and Various Factors.

| | | |
|---|---|---|
| Judgment | .15 | .06 |
| I Q | .11 | .06 |
| Amount of Schooling | .17 | .06 |

From the correlation table it appears that conduct is only slightly, if at all, related to ethical judgment, I Q or amount of schooling. To some extent this is due to the highly specific character of conduct, i.e., one sample of conduct in a given situation will predict only slightly what children will do even under very similar situations. But even when these correlations are corrected for attenuation, they are still small, indicating that conduct varies concomitantly with them to a rather unimportant extent only. The ethical judgment was related to the other dependent variables.

## II. Relationships of Judgment.

The problem comprehends an investigation of any differences in conduct which may exist on the basis of age, I Q, school grade, and judgment. Therefore, the next procedure was to determine what influence the factors of age, intelligence and amount of school have on judgment.

The material for analysis in the following section was obtained from scores of the test of ethical judgment. This analysis aided us in forming some judgment as to whether difference in conduct is more directly associated with difference in age, I Q, grade or by the amount of ethical knowledge the child possesses. Since no previous work has been reported on ethical judgment studies for children of pre-school and primary groups, there are no data for consideration at this point.

In the present problem, the experimenter is concerned with finding out the relation of ethical knowledge to several varying factors; namely, C A, M A, I Q, and amount of schooling.

Which is the best indicator of ethical judgment: Years of living, native ability or social training?

If the relationship between the factors is a close one, then it may be assumed that they both measure the same thing. If the relationship is not close, then apparently they do not measure the same thing, and it would follow that response on an ethical judgment test involves something more than the factors

measured. It may be that certain ethical judgments come a little earlier in the mental scale for some than for others, and that this difference is of considerable significance in conduct.

It will be enlightening to know to what extent the different factors have a bearing on the response to these tests.

## Relationship of M A, C A, to Judgment.

A presentation is given of age group responses to each of the judgment tests. The necessary facts are given in the last four columns in Table VIII. It will be seen from this Table that the average score on the judgment test shows a consistent gain over each preceding year. Likewise, there is a gain in the elements of the test itself. For all ages, the first test, that of the story, is the most difficult.

Because of the apparent importance of judgment, it has seemed advisable to study the parts of the tests of judgment and the factors that have a bearing on judgment, rather intensively. Figure 10 shows % of judgment on each test by M A group. Figure 11 shows % of judgment on each test by C A group.

Table IX shows the mental age range for the subjects which spread from the C A limits of 4, 5, 6 and 7, to the mental age limits of 3, 4, 5, 6, 7, 8 and 9. However, in the extreme groups the number is too small to be significant.

A comparison of Tables VIII and IX reveals that the scores for the 4 C A are more nearly approximated by the 5 M A.; the 5 C A, with the 6 M A, and so on through the various levels.

TABLE VIII.

Relation of C A to % of Judgment Test

| Year | No. of Cases | Average Judgment Score | %of Adult Judgment | % of Judgment on Each Test | | | |
|---|---|---|---|---|---|---|---|
| | | | | I | II | III | IV |
| 4 | 31 | 9 | 45 | 15 | 45 | 39 | 46 |
| 5 | 27 | 12 | 60 | 35 | 46 | 69 | 69 |
| 6 | 37 | 14 | 70 | 36 | 65 | 77 | 84 |
| 7 | 25 | 16 | 80 | 41 | 79 | 83 | 92 |

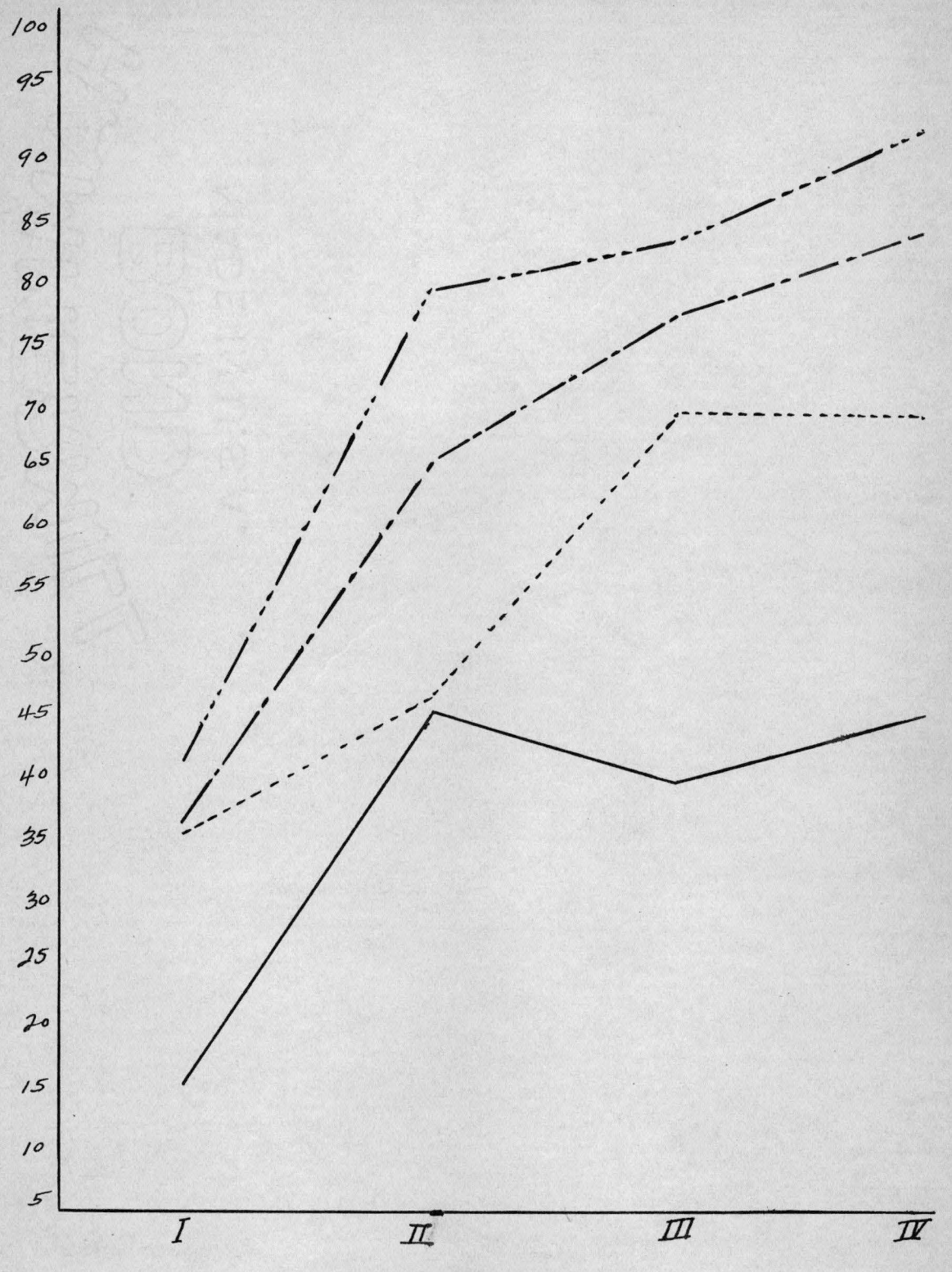



FIGURE 10.

Percent of Judgment on Each Test by C A.

(For TABLE VIII)

4. Years ———
5 " .....
6 " —·—·—
7 " ———···

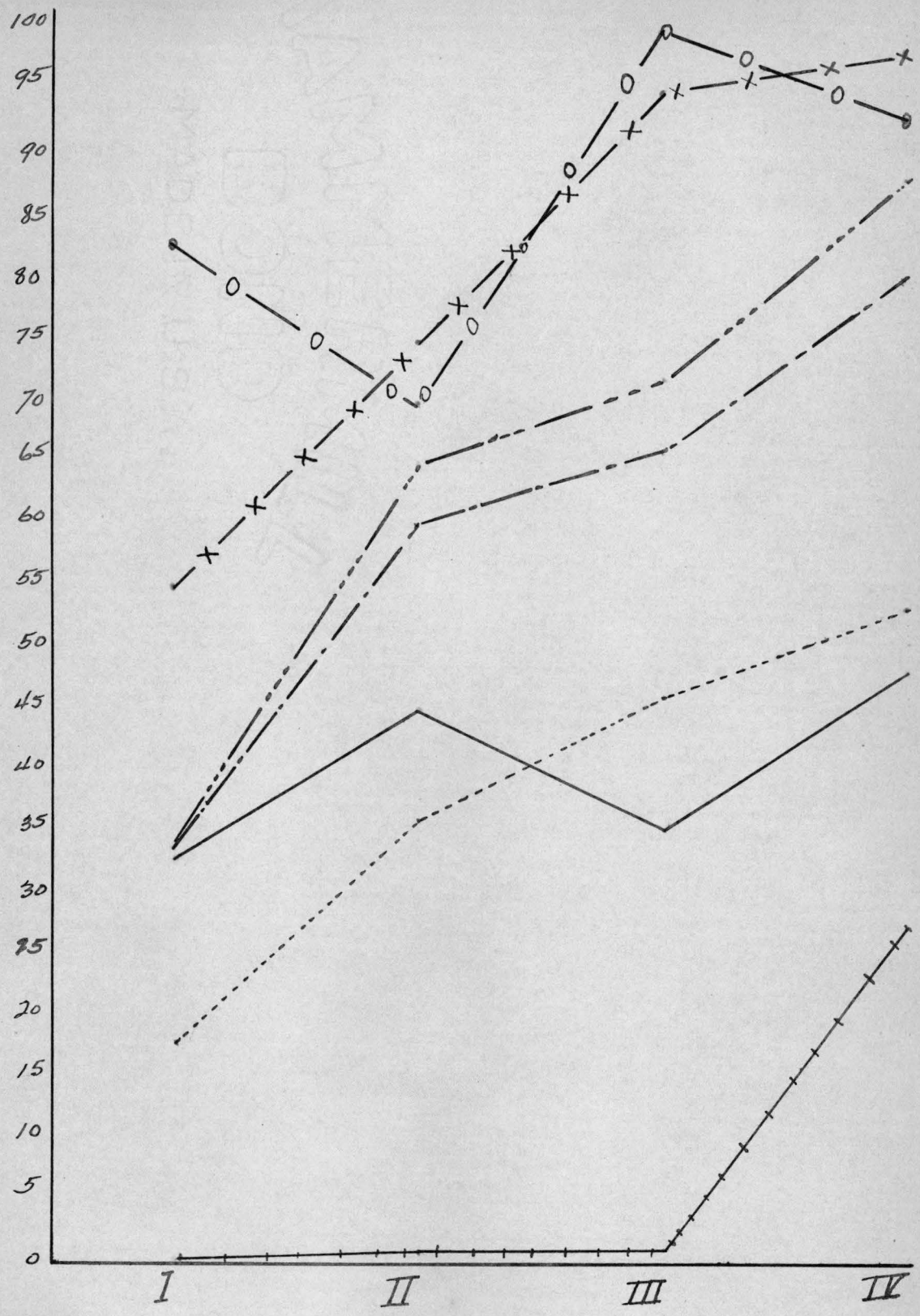



FIGURE 11.

Percent of Judgment on Each Test by M A.

(For TABLE 9)

3 Years.
4 "
5 "
6 Years.
7 "
8 "
9 "

TABLE IX

Relation of M A to % of Judgment Test

| Year | Number | Average Judgment Score | % of Adult Judgment | % of Judgment on Each Test | | | |
|---|---|---|---|---|---|---|---|
| | | | | I | II | III | IV |
| 3 | 2 | 2 | 10 | 0 | 1 | 1 | 27 |
| 4 | 4 | 8 | 40 | 33 | 45 | 35 | 48 |
| 5 | 24 | 8 | 40 | 18 | 36 | 46 | 53 |
| 6 | 32 | 12 | 60 | 34 | 60 | 66 | 80 |
| 7 | 47 | 13 | 65 | 33 | 65 | 72 | 88 |
| 8 | 9 | 16 | 80 | 55 | 75 | 95 | 98 |
| 9 | 2 | 17 | 85 | 83 | 70 | 100 | 93 |

This is no doubt due to the fact that the group is superior to the average of the entire school population.

For the 3 M A group the test didn't function as a whole, test number IV, the vocabulary test, scored 27%. However, the few cases at the 3, 4 and 9-year mental level are not representative of that year, due to the fact that there is a difference of six months in the nine-year range of the two subjects.

The groups of 5, 6 and 7 M A are large enough to warrant observations of actual trends in judgment. Thus in Table VIII and IX and in Figure 13, is seen the consistent progress of ethical judgment, as it progresses from year to year by C A and M A groupings. Figure 12, a composite of Tables VIII and IX., shows how closely the ages follow each other in the responses concerned with the percent of correct judgments dealing with situations of ethical conduct. The M A line must be discounted at the 3-year level, because the two cases are not enough for a reliable sample, likewise the nine-year M A line represents only two cases.

Figure 12 shows that ethical judgments are superior at every chronological age over the M A until the 5 C A is reached. This seems to indicate that there is a difference in the extent to which native ability responds in the lower levels. The question arises: Does the child at 4 years of age (C A) have more knowledge of ethical standards than the 3-year-old child with a M A of 4 years? Our data indicates an affirmative answer

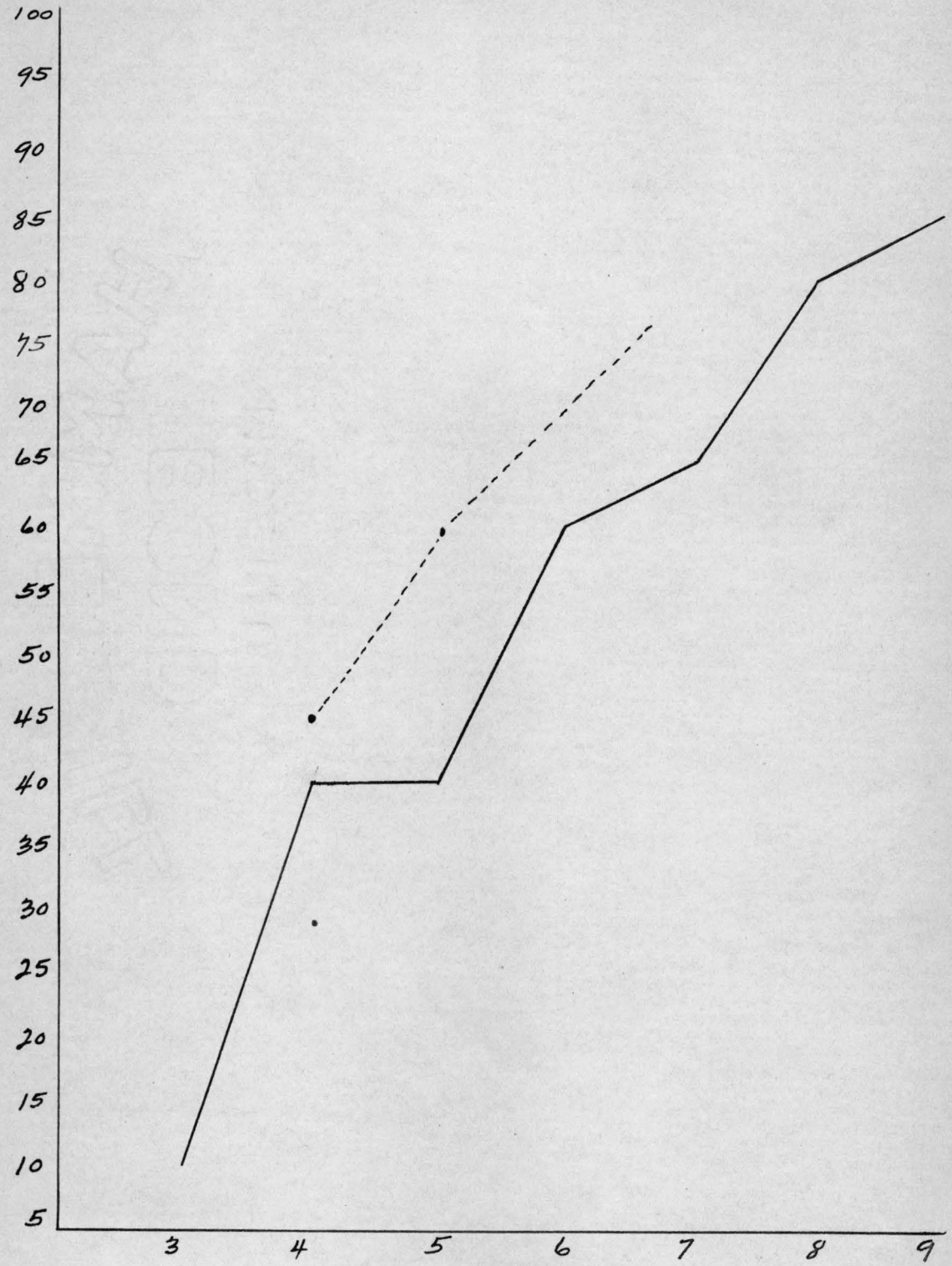



FIGURE 12.

Relation of M A and C A to % of Judgment Tests.

(For TABLES VIII and IX)

M A ————
C A - - - - - - - -

to this pertinent question. The whole question of the age of acquiring judgments forces its way to ages below the range of this study. It would seem that ethical judgments are achieved from experience and that mental age does not reveal itself by judgments until the 5 C A is reached.

This reinforces the conclusion that social experience is an essential factor without which even the superior child cannot achieve ethical standards.

## Relationship of I Q to Judgment.

To compare the results of the children of lowest ability with those of median and highest ability the percents of correct judgments are given for each group in Table VI. This distribution takes the children regardless of grade or age, selection being solely on the basis of I Q status.

No very marked relationships are shown between the % of judgments obtained by those of low extremes in ability and those of superior ability. The fewer number of cases of the retarded group should be considered in the interpretation of the figure; however, the tendency of the lower ability groups is to keep consistently low.

By comparison of the normal and superior groups, it is seen that the % is within the same decile for the three. Every grouping used in these tests tends to verify the conclusion that

the more remote a selected group is from a natural distribution, the lower the relationship of abilities. Another relationship must be considered; namely, the school, to determine the influence of the social group on the judgments of its members.

## School and Judgment.

An examination of the scattergram of Table X indicates that the relationships for the increased amount of schooling and correct ethical judgments are higher at each grade level. More definitely to determine the relative degree of relationship, a comparison was made of the averages of the % of corrected judgments for each division.

The percent of correct judgments show that there is a decided gain from pre-school to school judgments. Both of the pre-school groups rank around 50% of the total judgments, whereas the second year group is nearly perfect. However, the lower numbers at the second grade level must be taken into account.

A bit of evidence interesting in this connection, is involved in the relationship of the mental levels of the various groups. It has been mentioned that the superior native ability has been found in the lower school levels. Table XI points out that those of superior ability include the group of children who do not attend school, 78%, in the kindergarten group, 79%, in the 1st grade group, 44%, and in the second grade, 60%.

TABLE X.

Scattergram of Judgment in Relation to School Grade

| No. | Pre-school | Kindergarten | 1st Grade | 2nd Grade |
|---|---|---|---|---|
| 20 | | | | / |
| 19 | | / | // | //// |
| 18 | | | // | /// |
| 17 | | | ////// | / |
| 16 | | /// | ////// | / |
| 15 | | / | ///// | |
| 14 | / | // | ///// | |
| 13 | /// | //// | ///// | |
| 12 | / | ////// | //// | |
| 11 | | // | / | |
| 10 | // | /// | | |
| 9 | / | /// | | |
| 8 | /// | //// | | |
| 7 | / | / | / | |
| 6 | | //// | / | |
| 5 | / | / | / | |
| 4 | / | /// | | |
| 3 | | | | |
| 2 | | | | |
| 1 | | | | |
| 0 | | / | | |
| Total | 14 | 42 | 54 | 10 = 120 |
| % of | 45 | 51 | 72 | 91 |

TABLE XI.

Relation of I Q to School Groups

| | Pre-school No. | % | Kindergarten No. | % | 1st Grade No. | % | 2nd Grade No. | % | Total |
|---|---|---|---|---|---|---|---|---|---|
| Retarded (70-89) | | | 1 | 2 | 5 | 9 | | | 6 |
| Normal (90-109) | 3 | 22 | 8 | 19 | 26 | 47 | 4 | 40 | 41 |
| Superior (110-119) | 4 | 28 | 10 | 24 | 14 | 28 | 3 | 30 | 31 |
| Very Super. (120-above) | 7 | 50 | 23 | 55 | 9 | 16 | 3 | 30 | 42 |
| Total | 14 | | 42 | | 54 | | 10 | | 120 |

Correlations Between Judgment Scores and Various Factors.

| | | |
|---|---|---|
| I Q | .05 | .06 |
| Amount of Schooling | .60 | .04 |

The low correlation of I Q with ethical judgment bears out the percentage comparisons of FIGURE 13, which seemed to indicate that ethical judgments were not dependent on the factors measured by I Q's. But ethical judgments are apparently rather closely tied up with the factors involved in amount of schooling. This might indicate that the children learn what to say in response to ethical situations as a result of direct school instructions or a result of social contacts incidental to going to school or merely as a matter of getting older. But in any event, the existence of some rather important bond of this sort is established with great certainty between schooling and ethical judgments. Although schooling and conduct are by no means so closely related.

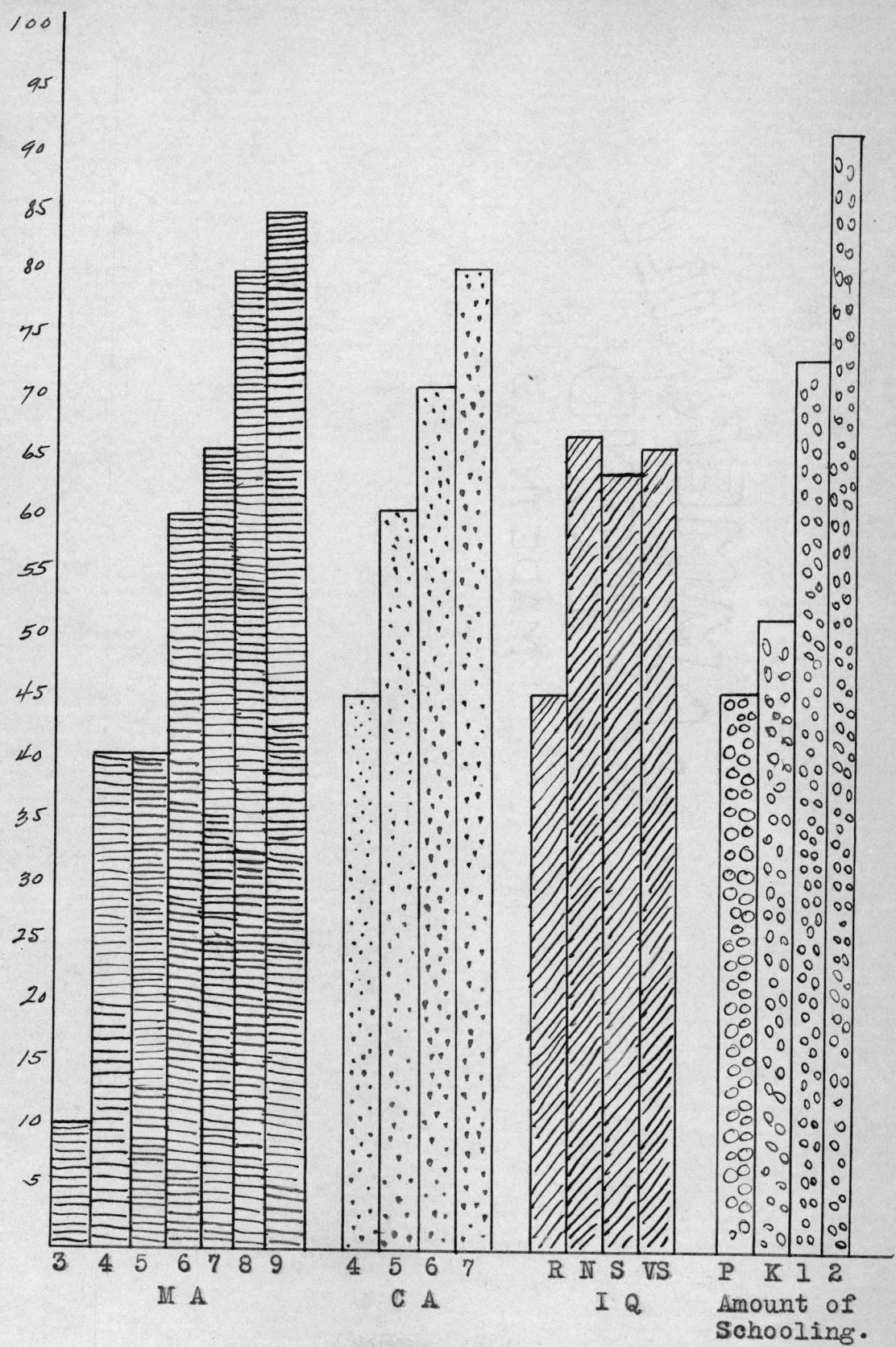



FIGURE 13.

Comparison of M A, C A, I Q and Amount of Schooling to % of Judgment Scores. (For TABLES VI and XIII)

The effectiveness of amount of schooling in relation to percent of ethical judgment seems to be substantiated by the percents found in Table X. This response to judgments, therefore, seems to depend, not upon the intellectual element but upon social forces in connection with ethical principles. The children in the first grade make better scores on the judgment test than do the children in pre-school of similar age but with higher mentality.

Our independent measures of the children's conduct were discussed in relation to M A, C A, I Q and amount of schooling. Likewise, detailed examination of the scores of ethical judgment were discussed along similar lines.

The next problem is to determine the relationship between conduct and judgment.

## III. Judgment and Conduct

Table XII shows the comparative scores on judgment and intelligence and conduct made by the consistently honest and a dishonest group. Here, two contrasting groups may be considered: Those who revealed no dishonesty at least as far as all of the test opportunities offered and those dishonest either in one, two, three or all of the situations.

Forty-one absolutely honest cases were available for the study; this makes 34% of the entire group. In other words, 66%

TABLE XII

Comparative Scores on Judgment and Intelligence Made by the Honest and Dishonest Groups.

| Score | Pre-school | | Kindergarten | | 1st Grade | |
|---|---|---|---|---|---|---|
| | Honest | Dishonest | Honest | Dishonest | Honest | Dishonest |
| C A | 4-6 | 4-7 | 5-4 | 5-0 | 6-8 | 7-2 |
| M A | 5-6 | 5-6 | 6-9 | 5-6 | 6-8 | 6-10 |
| I Q | 123 | 120 | 125 | 109 | 100 | 102 |
| Judgment | 9 | 9 | 12 | 9 | 14 | 13 |

| Grades Represented: | Honest | Dishonest |
|---|---|---|
| Pre-school | 5 | 5 |
| Kindergarten | 9 | 9 |
| First Grade | 20 | 20 |
| | 34 | 34 |

were found to be dishonest.

It was not possible to match these forty-one cases by children in the same grades who proved dishonest by the test situation, because of the few numbers in one of the divisions. In the second grade there were seven who were honest and only three who were dishonest. However, it was possible with three of the four groups to so compare them; namely, pre-school, kindergarten and first grade group. In intelligence, a native factor, the honest group scored noticeably higher in the kindergarten. There is a slight indication for the dishonest to be less intelligent.

The kindergarten group shows the greatest difference between the groups in all the relationships, however, the number is too small to be a reliable index of the total group.

In the first year, with twenty cases in each group, the difference shows that the dishonest have a slightly higher I Q, but that the honest group made higher scores on ethical judgment. It is apparently unsafe to draw inferences as to conduct on any of the bases thus far advanced.

The relationship between the chronological age and mental age in regard to scores obtained from the ethical judgment and ethical conduct tests is shown by Table XIII. Based on the percents of the group as a whole, we find the judgments increase with both M A and C A., likewise, honesty increases consistently after the 5-year mental age is reached.

TABLE XIII.

Relation Between M A and C A to % of Judgment Scores and Honesty Scores

| M A | C A | % of Adult Judgment M A | C A | Honest % M A | C A | Dishonest % M A | C A |
|---|---|---|---|---|---|---|---|
| 3 | | 10 | | 0 | | 100 | |
| 4 | 4 | 40 | 42 | 0 | 26 | 100 | 74 |
| 5 | 5 | 40 | 60 | 25 | 26 | 75 | 74 |
| 6 | 6 | 60 | 71 | 31 | 32 | 65 | 68 |
| 7 | 7 | 65 | 80 | 42 | 52 | 56 | 52 |
| 8 | | 80 | | 33 | | 67 | |
| 9 | | 85 | | 50 | | 50 | |

A further comparison was made to point out relationships between judgment and conduct in Table XIV.

Consistently honest refers to a perfect score in each test of conduct. Dishonest, in this connection, means failure in one, two or three of the conduct tests. Consistently dishonest refers to failure in all of the tests of conduct. Heretofore, the last two divisions have been considered under the one heading, dishonest.

The consistently honest with a perfect judgment score was made by one child in the second grade with an I Q of 121.

The two cases of the consistently dishonest scores and imperfect judgment score were boys in the first grade with I Q's of 106 and 98 respectively. Three different schools are represented by the two extremes. It may be significant to note that in the cases as a whole, the dishonest group has a lower average judgment score.

An analysis of conduct and judgment in regard to the different schools was not made, due to the fact that the groups were not similar in regard to M A, C A, I Q or amount of schooling. In many of the school groups the number was too small to yield any reliable results.

An analysis of the data concerning M A, C A, I Q and amount of schooling in relation to judgment is presented in Figure 13.

Similar factors in relation to conduct are given in Figure 9.

TABLE XIV.

Relation Between % of Perfect and Imperfect Scores of Judgment and Conduct.

| | No. Cases | % Cases | Average Judgmt. Scores. |
|---|---|---|---|
| Consistently Honest; Perfect Judgment | 1 | 1) | |
| | | ) | .....13.9 |
| Consistently Honest; Imperfect Jdgmt. | 40 | 33) | |
| Dishonest; Imperfect Jdgmt. | 77 | 65) | |
| | | ) | .....12.2 |
| Consistently Dishonest; Imperfect Jdgt. | 2 | 2) | |

A study of the two tables brings out interesting contrasts between the various factors.

Let us consider first the relation of M A to both judgment and conduct. It may be seen that there is no relation between 3-year M A and judgment is, however, a tendency to advance in both judgment and conduct after the 5-year M A is reached.

In the school relationship, there appears a consistent tendency toward higher scores in both tests after school relations have been established. The pre-school group scored higher in conduct and made a lower judgment score than did the kindergarten group. As the pre-school is younger, it points to the theory that conduct must be experienced before corresponding ethical judgment is achieved.

The young child's responses on ethical judgment test, depends to a considerable extent upon the state of growth (both M A and C A) which he has attained.

A comparison of the total averages in each division is seen in Figure 14, which is a condensation of Figures 9 and 13. This brings out the contrast between judgment and conduct and indicates that there is no significant relationship between the two.

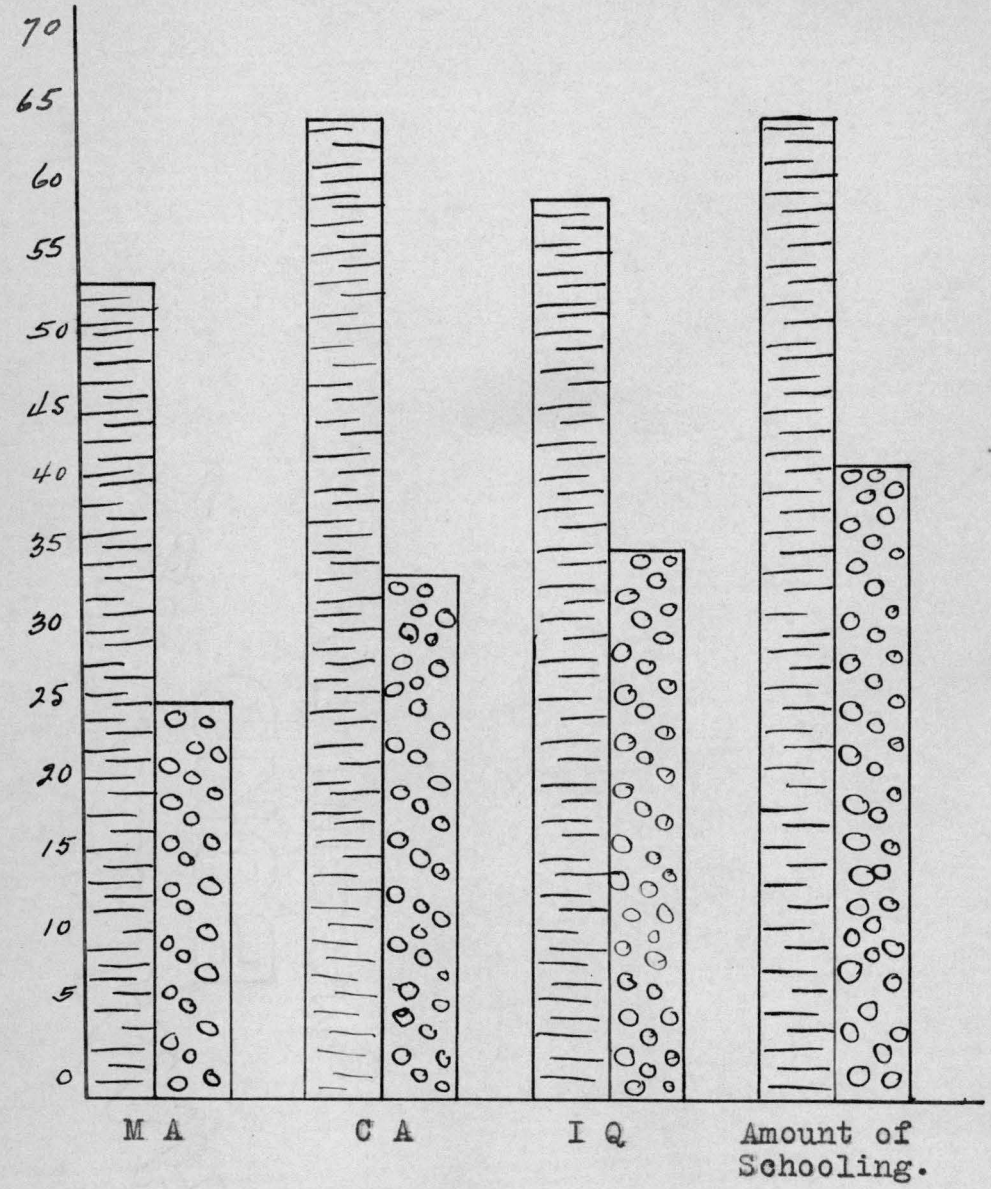



FIGURE 14.

Comparison of Average % of Judgment Scores With Average % of Conduct Scores. (Composite of Fig. 9 and 13)

Judgment Scores.

Conduct Scores.

# CHAPTER VI.

## Summary and Conclusions.

The procedures and results of this experiment may be summarized as follows:

1. A group of three tests; namely, an intelligence test, a judgment test, and a conduct test, was given to one hundred and twenty children, ranging in age from four to seven years. The subjects were classified under four divisions, M A, C A, I Q and amount of schooling.

2. Tests of judgment and of conduct were constructed for the testing program. The rating of the judgment test was determined on the basis of adult judgment. The conduct scores were judged arbitrarily honest or dishonest in accordance with acceptable behavior.

3. The three tests provide a comparison between the performances on the judgment test and on the conduct test in relation to four factors: M A, C A, I Q and school grade.

The results of this investigation showed that the following tendencies began to be manifested; namely,

1. C A and amount of schooling are associated with consistently increasing judgment scores; M A appears to be a significant factor after the 4th mental year is reached. Those of retarded mental status showed lower judgment scores.

2. Children under six years of age in school possess a greater amount of ethical knowledge than do pre-school children of similar age with higher mentality.

3. Judgment is not indicative of conduct. While judgment enables one to know what society approves, it does not assure corresponding conduct.

4. A study of the factors M A, C A, I Q and length of school experience in relation to conduct scores show no such successive gains as did the study of judgments. However, the C A and amount of schooling show general increase in scores. Conduct scores on the basis of M A and I Q groups are noticeably lower than the scores of judgment of the similar groups.

5. Ethical conduct is experienced before corresponding ethical knowledge is achieved.

6. Conduct of children apparently determines their ethical judgments until about the time they enter school.

7. It seems an inevitable conclusion that the factors examined in this study are not basic determiners of conduct. The control of conduct should be sought in the field of attitude and feeling rather than in the field of knowledge and achievement.

These results emphasize the need of keeping constantly before the parent and teacher in the early years, necessity of training and directing conduct along wholesome standards of living.

## Practical Conclusions.

The following conclusions applicable to a practical educational program are drawn from the results of the study. Children at all levels of intelligence display highly unorganized activities. Each situation is a complete specific performance.

A program of ethical training is necessary to insure ethical conduct. The factors of age, amount of schooling and acquisition of ethical judgments, do not inevitably produce ethical conduct. Social experience should be provided for pre-school children.

The teacher should understand the process of conditioning responses as the basic factor of behavior control. The"law of effect" is the determining element in conduct. This law implies both previous experience and the element of satisfaction. The satisfaction serves as a motive for later activities and responses either of conduct or of judgment. This is in harmony with the position of modern educational leaders.

The school program should provide situations which will give training in acceptable behavior; the response must be followed by a feeling of satisfaction that gives value and meaning to the outcome. Ethical judgment furnishes direction of outcome of conduct; feelings, the dynamic to secure that outcome. Conduct is not the function of habits, but rather of values and interests which have been trained through social experiences.

Imagination functions in the field of conduct by foreseeing

outcomes. Vicarious experience through play, dramatizations and literature are helpful in building up attitudes toward socially approved behavior and inhibitions against disapproved behavior. The program for ethical conduct includes both the training in habits and attitudes and instruction dealing with distant consequences of responses.

Criticism of children's conduct should be made only after careful planning as to how their faults may be corrected. They should not be criticised on the assumption that they should have known better. Knowledge appears to be concomitant with conduct. Therefore, the correct response must be experienced before corresponding ethical knowledge is attained.

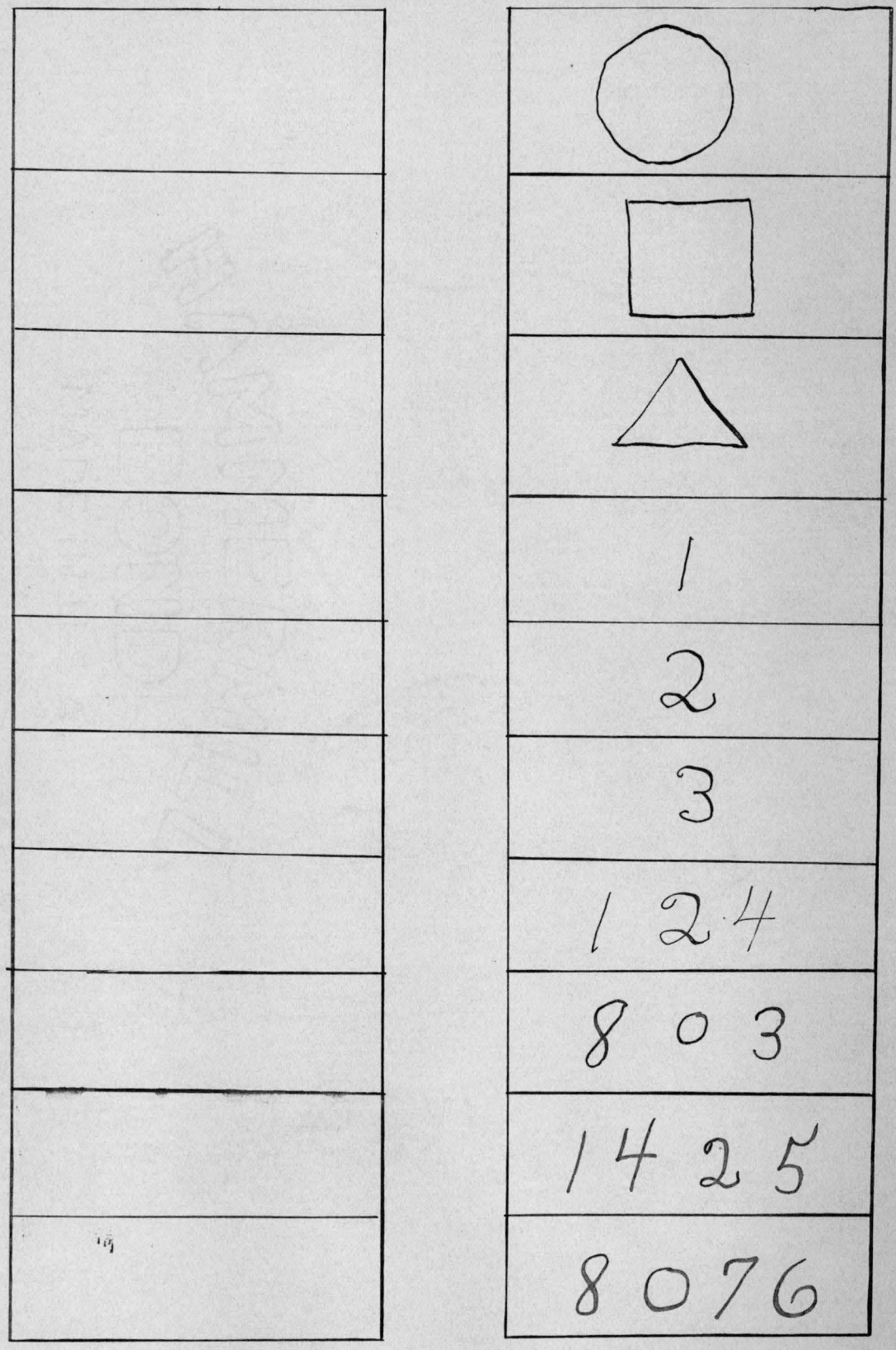
Adult attitude toward children's behavior may aggravate responses toward undesirable behavior of more harmful forms. Barriers may be thus established between adults and children that are difficult to tear down.

No behavior difficulty is easily changed. Specific daily habits must be established as results of acquired attitudes toward acceptable behavior.

The primary teacher should be on the alert in detecting first appearances of unethical conduct. Doing nothing about the first offense provides the satisfaction needed to form habitual responses of undesirable behavior. Disapproval of the first wrong responses, likewise, tends to inhibit similar responses.

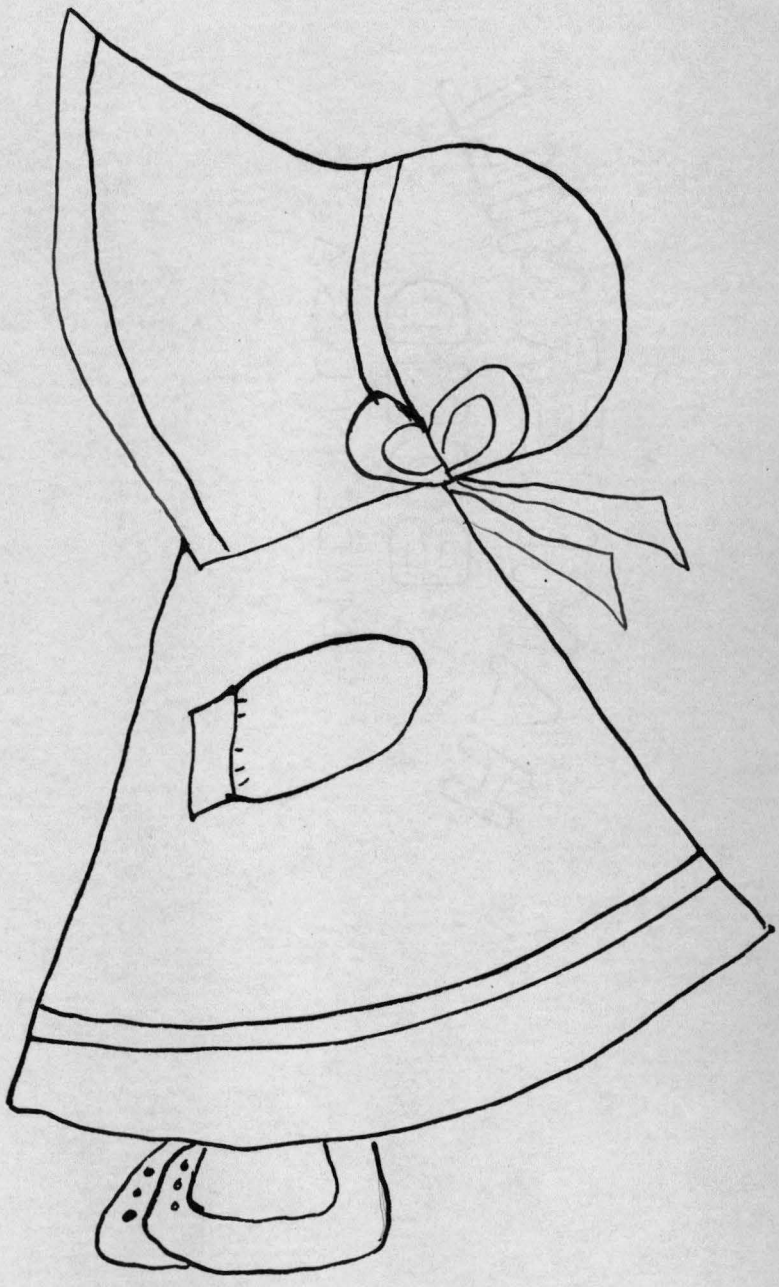
# APPENDIX A-I

Conduct Test No. I. Geometric Figure and Number Test.



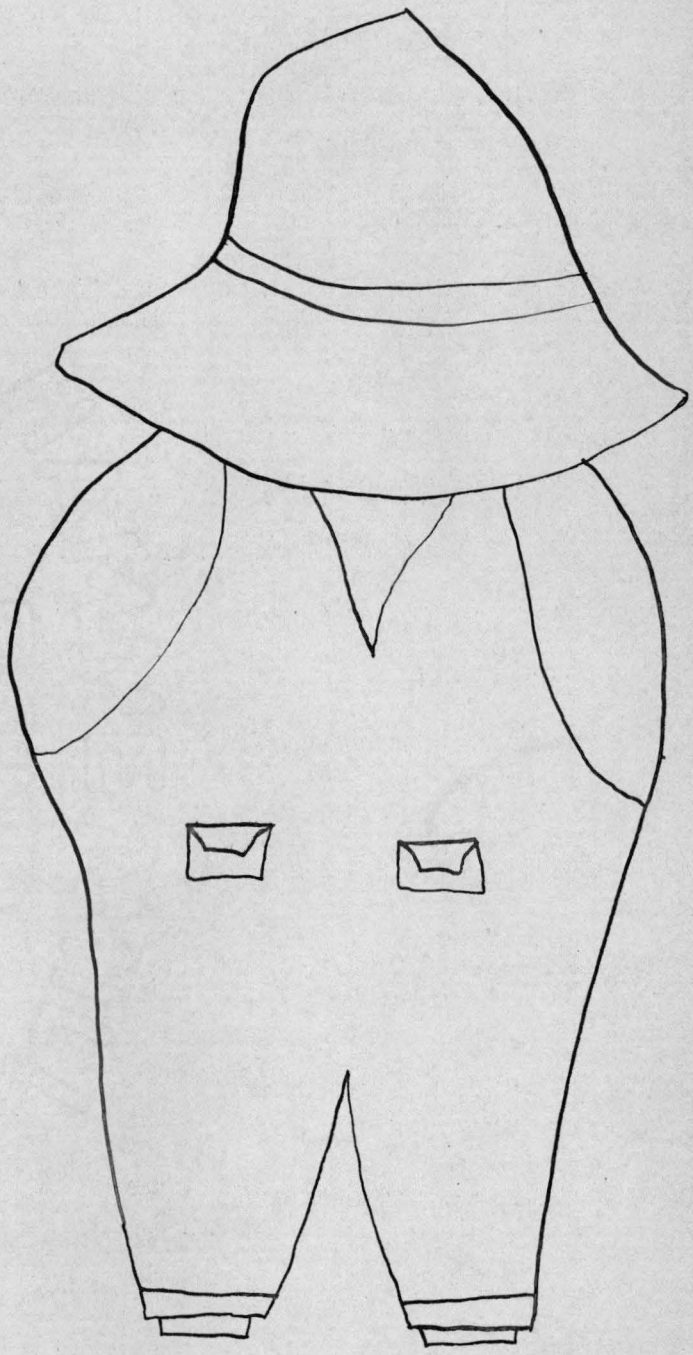
Appendix A, 2 Outline of Picture to Color.

(Used with Conduct Test No. II.)



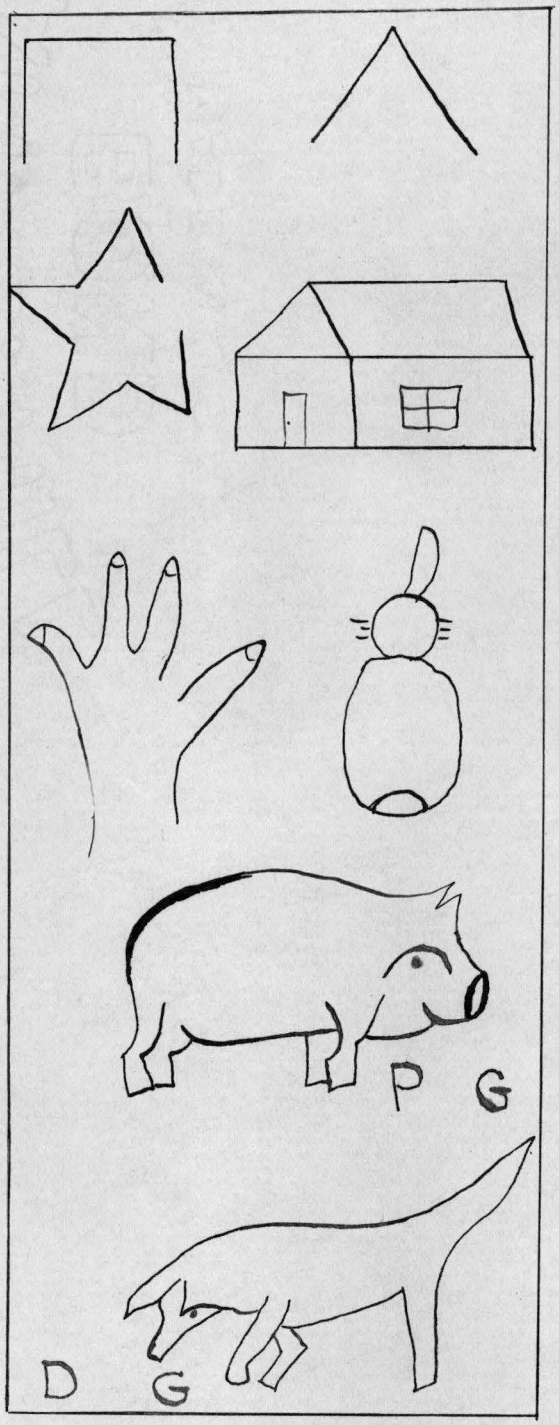
APPENDIX A-2. Outline of Picture to Color.

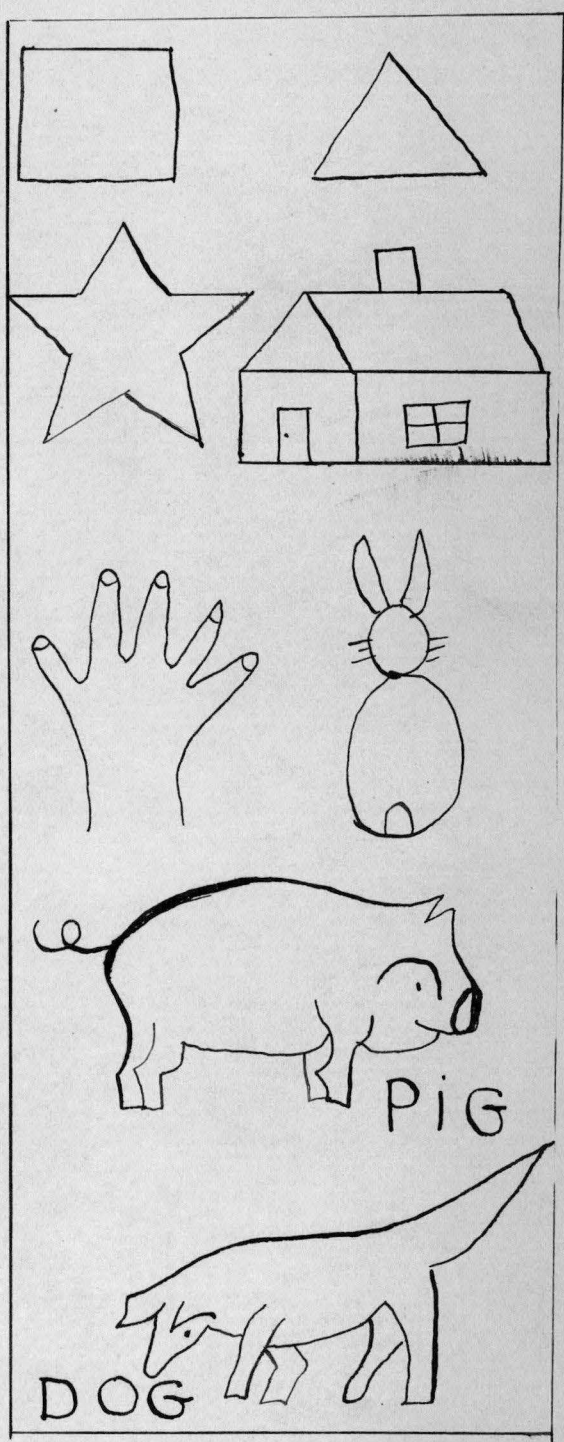
(Used with Conduct Test No. II.)



APPENDIX A-3

Conduct Test No. III--Completion Picture Test.



# APPENDIX B.

## Present Study Compared with Study Made by Tuttle.

The carbon device of honesty test, produced by Tuttle and used in grades 4 to 8, served as a model for the construction of two divisions of the present conduct test.

Tuttle, who tried in his research to answer the question of nature of honesty trends as found in grades 4 to 8, concluded that the trend of honesty (1) increased at each higher grade level, and that (2) intelligence correlates highly with honesty tendencies, (3) geographical areas correlate highly with honesty tendencies.

A comparison of results of this study with the investigation by Professor Tuttle show:

| Present Study. | Tuttle's Study. |
|---|---|
| 120 cases. | 2,037 cases. |
| Pre-school--2nd grade. | Grades 4 to 8. |
| 2% (2 cases) consistently deceitful. | 11% consistently deceitful. |
| 65% deceitful. | 39% deceitful. |
| 33% consistently honest. | 50% consistently honest. |
| C A greatest factor of conduct and judgment. | I Q greatest factor (of common factors of both studies) of conduct. |
| Grade to grade reform tendency. | Grade to grade reform tendency. |

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