

# CHILD PSYCHOLOGY

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*To*  
THE MEMORY OF  
MY MOTHER

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## PREFACE

### TO SECOND EDITION

THE present edition of this book, like the first edition written nearly ten years ago, presents an American functionalistic point of view. I hope that my psychological thinking has matured somewhat as the science has developed during these years, but actually the main developments in the general field have been calculated to strengthen rather than to challenge a functionalistic position.

Of the fifteen chapters in this edition eight are either entirely new, or represent a new organization and treatment of materials. The Introduction has been rewritten. The second chapter presents a biography of a five-year-old based on an original diary. Chapters Three, Four, and Five present a new treatment of the rôle of heredity in mental development. The next two chapters, dealing with individual differences and with general intelligence, are entirely new ones added at the request of teachers who have used the book. The thirteenth chapter, on the significance of problems in mental life, is a reorganization of materials in relation to the "mental hygiene" of childhood.

The remaining seven chapters have been altered in accordance with new research, which in this recent period has been particularly rich and fruitful. Some criticism of older theories has been omitted, as being no longer necessary. The chapter in the original edition on the causes of delinquency has been omitted, not because I do not think the material is valuable, but because I have become convinced that it is too specialized for a book of this sort. The treatment of social behavior has been expanded. I have omitted the chapter on play, but have included much of the material in the new chapter on problems in mental life.

This new edition, like the old, aims to organize and interpret the chief materials in the field of child psychology. The useful task of summarizing or reviewing the materials on various topics has been excellently performed in periodicals and in some texts. This book has a different aim, namely by

presenting a consistent and critical basic interpretation of the field, to stimulate the student to organize his own psychological thinking in an effective way, to the end that he may better evaluate and use the many different sorts of psychological material that are now available or may become available. A student with such a critical equipment should not only be more interested in the developments in this fascinating field: he should also be more ready to modify his ideas as these developments take place, and more flexible in applying psychological generalizations in actual dealings with children.

In preparing the new edition I have been particularly helped and encouraged by criticisms of particular new chapters made by Harvey A. Carr, George W. Hartmann, Arthur T. Jersild, Leonard Carmichael, Clyde Marshall and Robert Leeper. My husband, Merle Curti, has read the entire manuscript critically and given valiant aid with the proof reading. Finally I want to express my lasting gratitude to students of Smith College for their appreciative and stimulating response to the book over a period of eight years; and to students of Teachers College, Columbia University, who have made me realize, as I never quite have before, the vital importance of child psychology to teachers.

MARGARET WOOSTER CURTI

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# CHILD PSYCHOLOGY

## CHAPTER I

### INTRODUCTION

WE HAVE been living in a period of particularly keen interest in child psychology on the part of intelligent laymen — parents and teachers, artists and preachers, authors, business men, and philosophers. Probably it is partly owing to this popular interest (and partly because professional psychologists have been subject to the same social-intellectual forces as laymen) that professional psychologists have begun of recent years to take a renewed interest in this branch of their field. They have tried to meet the calls for help in solving practical problems by giving wisdom already acquired, and by trying to acquire more. Thus, for example, the development of the mental testing movement was greatly accelerated by the request made of the psychologist Binet by school authorities of Paris for help in diagnosing cases of mental deficiency in the public schools.

### AIMS OF CHILD PSYCHOLOGY

The practical aim which underlies much of the work in child psychology is thoroughly legitimate, since the most important aim of child psychology is simply to understand mental development in the child. But to understand means to be able, within the limits of the understanding, to predict. A second chief aim of child psychology, therefore, is to control. We wish to understand the minds of children not primarily for the sake of the experience itself but, when all is said and done, in order that we or others whom we teach may more effectively direct their development. "Vain is the discourse of that philosophy," said Plato in the *Republic*, "by which no human suffering is healed." Applying this to the field of child psychology we would emphasize its

potential value in helping to solve the mental problems of childhood, and in making possible more effective adjustment for all children. But Plato did not mean his phrase to be taken literally. He meant simply that knowledge should be related to the needs of human beings. Child psychology may not only help to solve problems; wisely applied, it should have a positive function also in making for the development of a broader and richer personality in the child.

Although from one point of view all scientific child psychology is ultimately of practical value, it is easy to over-emphasize the practical aim. When the attention of the psychologist is focussed closely on the "human suffering to be healed," he is often too ready to offer as aids instruments which have not been carefully tested, generalizations that may be false and misleading. The history of the mental testing movement in its dealings with such problems as those of delinquency and unemployment affords striking illustrations of this point. The belief that the first "Binet" tests were adequate measures of adult intelligence, and the doctrine that mental deficiency is the chief cause of delinquency, not only brought injustice and suffering to individuals, but delayed needed research on what is really a very complex problem. We have not yet been able to undo the unfortunate effects of the overenthusiastic application of the doctrine of the moron, with its accompanying reliance on testing methods later found to be unreliable.<sup>1</sup>

Even from a practical point of view, then, general theory and careful methods of study are seen to be of fundamental importance for child psychology. Especially in the minds of those who believe that in the last analysis all science is essentially a means of satisfying human needs, the building up of sound general theory about human nature comes to be regarded as an eminently practical undertaking. Yet granting this, we may still distinguish, among the serious students of child psychology, a group whose main emphasis is on general theory and method rather than on practical applications. In this group are found psychologists who study child psychology primarily for the light it throws upon general psychology. To understand human nature, we must understand

<sup>1</sup> Margaret W. Curti, "The Intelligence of Delinquents in the Light of Recent Research," *Sci. Mon.*, 1926, 22 : 132-138.

its origins and its early development, and the various factors important in that development.

#### SCIENTIFIC METHOD IN CHILD PSYCHOLOGY

Whatever the immediate aim of the student, then, in studying child psychology, the author would urge that careful observance of the general method of science is of first importance. The application of that method in the field of child psychology encounters special difficulties in addition to those inherent in any scientific work. The vital importance of the subject matter, easily realized because of his affection for children whom he knows or whom he wishes to help, may cause a student to look upon the subject in a more or less sentimental way. But if the exact and complete truth about the child mind is what we wish ultimately to attain, we shall of course wish to maintain the attitude and to use the methods best calculated to secure this end. It has been customary to assume that the scientific attitude should be "fact-finding," impersonal, detached, and as free as possible from emotional bias of any kind. In the writer's opinion this attitude is correct, and is as proper for child psychology as for any other field of psychology. Emotional attitudes, of course — attitudes based on æsthetic, ethical, or personal appreciations — will and should motivate the search for truth; but while that search is in progress its ends are most likely to be attained by the deliberate maintenance of as much objectivity as it is possible to attain.

Another essential feature of scientific method, namely the attempt to secure verified and tested knowledge, holding hypotheses lightly while the testing is going on, is for some people more difficult in child psychology than in the general field. Because this branch of psychology is relatively new, and has attracted so many parents and teachers who *know* children from their own experience, we find in the literature of the subject any number of generalizations which are really based, not on careful, repeated research and critical interpretation, but simply on the common sense experience of the writer. Now such intuitively acquired understanding, such common sense knowledge, is very useful in dealing with children. But it is not science, nor to be relied upon as

science, until it is either thoroughly tested, or stated carefully in a tentative way, and labeled for what it is.

Desirable as fully rational analysis based upon extensive objective study is, it yet remains true that in dealing with topics in child psychology to which that sort of analysis has not yet been sufficiently applied, we must depend for our working hypotheses upon what might be called intuitive judgments based upon racial and individual trial and error. These we must utilize, conscious of what they are, until the science is further developed. Of course we should not want to depend upon kind neighbors, poets, or religious prophets for the final word on any psychological topic; but where psychology itself has nothing definite to say, generalizations based upon practical experience must be our guide.

One of the canons of scientific method, namely that scientists should not as scientists attempt to set standards of value, is frequently violated by writers on child psychology when they tell parents and teachers how children *should* be brought up, and thus lead these grown-ups to believe that they are getting scientific guidance, when as a matter of fact they are simply being given the personal opinions of the psychologist. Now the type of control that is actually exercised will depend entirely upon the values in human life which are considered worthy of attainment. Most scientists do not at present believe that the business of science is to set the standards of value. They arise out of the needs of the human organism, are developed and modified in the clash of motives, and become formulated in language — in proverbs and mottoes or in moral and legal codes — as human beings learn more and more effectively to exercise indirect or ideational control over their environment. The present standards of value of any individual or group are the outcome of a slow growth in social tradition, and they too are subject to change.

Psychology does examine and study the judgments of value prevailing at any time, the conditions of their development, their probable effectiveness in securing adjustment. But as science it does not say which are right and which are wrong. If the scientist is to be effective in searching out the truth and making it applicable, he must be as objective and impersonal as possible, making no judgments of right or wrong, ugly or beautiful. Recognizing that certain values

or ideals for a desirable adult life at present exist, the child psychologist may legitimately point out how psychological principles may be applied in achieving those values. In fact, if ultimate control is a legitimate aim of science, it is a part of his business to point out such applications, since it is only through the testing of hypotheses and theories that their usefulness can be estimated, and genuine advance be made.

### SPECIAL METHODS IN CHILD PSYCHOLOGY

A brief critical sketch of some of the leading special methods used in child psychology may help to orient the thinking of the student as he surveys the work in the field. It should also help him to develop a more critical, and at the same time a more appreciative attitude toward that work, than is common in the study of the elementary student whose idea of being scientific is likely to consist in trying to separate the sheep from the goats.

1. **The Biographical Method.** — Even before the middle of the nineteenth century works began to appear which showed a realization of the importance of obtaining detailed and accurate accounts of development in individual children. Thus there gradually came into use the first really scientific method used in child psychology, which may be called the biographical method. The first account of children's early mental development was published by Tiedemann in Germany about 1787, and this was followed by some others which were even more detailed and accurate.<sup>2</sup>

In 1882 appeared *Die Seele des Kindes* (*The Mind of the Child*), by Preyer, a German physiologist. This was a careful record, made from notes taken down at the time, of important events of the first three years of life of his little son, with suggestions about the probable course of development of children in general. Such facts were noted as reflexes present at birth, time and manner of appearance of first reaction to light, development of the grasping reaction, and the like. Here we have the beginning of first-hand systematic observation of facts, with the explicit suggestion of

<sup>2</sup> See Carl Murchison and Suzanne Langer, "Tiedemann's Observations on the Development of the Mental Faculties of Children." *Ped. Sem. and J. Genet. Psychol.*, 1927, 34 : 205-230.

the value of a plan for continuous controlled observation, not only of children but of animals.<sup>3</sup> This is an anticipation of the method developed and used thirty years later by John B. Watson and others in the study of children. It has been used also by many zoölogists and psychologists in that observation of animals which developed into animal psychology and which gave such impetus to the genetic and objective study of mind.

Following Preyer, the biographical method was used by a number of writers with varying degrees of success according to their training and the facilities they had for accurate observation and recording. The record of Perez (*Les Trois Premières Années de l'Enfant*) is one of the most significant. Miss Shinn's *Biography of a Baby*, a careful and charming account of the first year of life of her niece, is still of genuine value. Other more recent baby biographies such as those by the Scupins and the Sterns in Germany, and that by Professor Dearborn among others in the United States, have contributed valuable data.<sup>4</sup>

In certain definite ways the usefulness of the biographical method is limited. In the first place, even the most scientific parent is likely to be biased in his selection of events to record, if not in his observation, by love for the child and desire to have him excel. Again, because of lack of time or definite planning, the observation is likely to be only casual, and much that is important may be missed. For example, the steps of learning behind a given bit of behavior may be entirely overlooked. Then, too, the general lack of experimental control and statistical analysis lessen the reliability of results. One father had noted in the diary that the baby, nine months old, showed a preference for using her right hand, when it occurred to him to see in how many of twenty trials she would reach for a toy with the right hand. In the test, this hand was actually used only forty-five per cent of

<sup>3</sup> Wilhelm Preyer, *The Mind of the Child*, trans. by H. W. Brown, Appleton, 1890.

<sup>4</sup> Bernard Perez, *La Psychologie de l'Enfant; Les Trois Premières Années de l'Enfant*, Paris, Bibliothèque de Philosophie Contemporaine, 1892; Millicent Shinn, *Biography of a Baby*, Houghton Mifflin, 1900; G. V. N. Dearborn, *Moto-Sensory Development*, Warwick and York, 1910; Ernst and Gertrud Scupin, *Bubi's erste Kindheit*, Grieben, Leipzig, 1907; William and Clara Stern, *Mono-graphien über die seelische Entwicklung des Kindes*, Leipzig, Barth, 1907, 1909.

the time. A fourth and probably the most important limitation of the biographical method is its slowness. The technique of observation up to this time has not been sufficiently standardized to make possible mass treatment of the data. Even though the method of observation is now being standardized, progress by this method is bound to be slow.

In spite of those disadvantages, however, the biographical method is of great value, particularly for the psychology of early childhood. The study of complete biographies — carried further, to be sure, than most of those that we now have — may be expected to throw important light not only on growth and early development, learning, and individual differences, but on the origin and development of personality traits and types, and upon general problems of intelligence, temperament, and character. The biographical method should be increasingly valuable as supplementing other methods, as suggesting problems for research, and above all as a means of giving us a realistic understanding of the growth of the “whole child.”

2. **The Questionnaire Method and the Child Study Movement.** — At about the time Preyer's book appeared, G. Stanley Hall, “father of the child study movement,” was making in Boston an investigation of “the contents of children's minds.” This proved to be a very important contribution to the methodology of child psychology.<sup>5</sup> It was based on an investigation in Germany conducted by the Berlin Pedagogical Society in 1869 and made use of the same method, modified in such a way as to be usable with the American school children. This was the famous questionnaire method. Four Boston kindergarten teachers questioned the children in groups of three, following a list of one hundred and thirty-four questions designed to test the child's knowledge of the world, such as “Have you seen a sheep?” “Where are your ribs?” “Have you seen a bricklayer at work?” “Have you saved cents at home?” When the child reported that he had seen such and such a thing, supplementary questions were asked, such as “How large is it?” “What color?” and the like. The answers were recorded. For each object the child was credited with either knowing or not

<sup>5</sup> G. S. Hall, “The Contents of Children's Minds,” *Ped. Sem. & J. Genet. Psychol.*, 1890, 1: 139-173.

knowing the concept, although it is apparent there must often have been doubt in the mind of the questioner. Besides these four examiners, about sixty other teachers reported results from using the same list. Results from more than two hundred children were presented. The most important result of this study was its revelation of the meagerness and inaccuracy of the ideas of young children, even when the corresponding words are glibly used. The educational application was strikingly clear, and the work proved very stimulating to teachers.

Another form of the questionnaire method as developed by Hall was much more commonly used than this method of direct questioning. To save time and trouble the questions were printed on blanks, with spaces left in which adults reported childhood experiences or observations of children, or school children themselves filled in the answers. In this way it was possible quickly to obtain a very large number of answers. These were often elaborately classified and presented in statistical form in tables and graphs.

There are many sources of error in the method in either of its chief forms. Hall himself, although he introduced it into this country and made enthusiastic use of it for many years, recognized the chief defects of the method. In "The Contents of Children's Minds" he wrote: "The difficulties and sources of possible error in the use of such questions are many. Not only are children prone to imitate others in their answers without stopping to think and give an independent answer of their own, but they often love to seem wise, and, to make themselves interesting, state what seems to interest us without reference to truth, divining the lines of our interest with a subtlety we do not suspect . . . the faculties of some are benumbed and perhaps their tongues tied by bashfulness, while others are careless, listless, or inattentive, and answer at random. Again, many questioners are brusque, lacking in sympathy or tact, or real interest or patience in the work, or perhaps regard it as trivial or fruitless." It is apparent that most of these criticisms apply equally to the printed questionnaire, and when grown-ups are asked for reports on childhood happenings, there is introduced a new source of distortion because of the frailties of memory.

It seems a pity that Hall, aware as he was of the draw-

backs of the method, should yet have placed such reliance on conclusions drawn from its use. False confidence in these conclusions was strengthened by the large number of subjects, the great mass of data, the impressive curves and tables. But it is now pretty generally held that the method as used by Hall and his followers yielded results little more than suggestive, and not at all justifying the mass of generalizations about every phase of child nature which were made freely on the basis of material thus gathered.

Not only were complex problems in psychology dealt with by the questionnaire method, but many sorts of problems of hygiene and health, of religion, education, and home life were investigated. Although in this country a psychologist and his students were leaders and directors in the work of investigation, they were aided by an army of untrained teachers and parents. Under Hall's stimulus the child study movement developed and became organized during the nineties into countless associations and study circles, with meetings and publications. After the end of the century the movement waned. Interest in children has undoubtedly steadily increased, but it gradually became clear that the best way to gain a scientific understanding of them was not through this sort of general study.

The questionnaire method as used in the pioneer days of child study was, in spite of its defects, of considerable value in stimulating interest in children, and sometimes in setting well-defined problems for further study. The formation of hypotheses is of course an essential step in scientific work. Of late years the same method, refined and modified, and with more adequate and critical use of statistics, has yielded very valuable results in child psychology. The questionnaire in some form is the only device we have for obtaining data on aspects of "inner" life such as phantasy.

3. **The Method of Experiment** is of real, although somewhat limited, usefulness in the study of children. A certain amount of experimental work with older children, in which well-defined problems are set and a standard procedure applied to a number of children, has been in progress during the whole of the modern experimental period. For example, by requiring children to report on standard pictures exhibited to them, and to answer definite questions about what

they saw, valuable information has been obtained about the reliability of observation and report in children. The extent to which children, as compared with adults, are subject to illusions, has been studied, individual differences in reaction time, in emotionality, and in perseverance have been investigated, and other problems have been dealt with in various ways.

But children in general are not particularly good subjects. Since, as a rule, they lack developed intellectual interests, it is hard to provide strong enough incentives for continued work. Their attention is easily distracted, and, too, they lack the training in methods of accurate observation which is often requisite. Especially in experiments requiring introspective reports are they likely to be unreliable subjects, not only through lack of technical training in a type of observation which is difficult even for adults, but because they are more suggestible than grown people. Moreover, the use of experimental methods is of limited usefulness for the study of many topics in child psychology, such as personality, because it introduces artificial situations which make the actions of the child unnatural.

Very young children, especially babies, are less likely than older children to be self-conscious and inhibited in experimental situations. They must be used as subjects, moreover, if we are to get first-hand information about the important early stages of development. Since 1917, when John B. Watson began to apply Preyer's suggestions for studying native responses, infants and very young children have been used more and more as subjects for experiment. In his very significant work, which was a stimulus for much later research, Watson followed Preyer in using the general method of continuous controlled observation, beginning at birth.<sup>6</sup> At a given time the infant was placed in a natural situation, certain aspects of the situation were varied and the responses recorded. For instance, the experimenters presented live animals to infants who had never seen animals, to see if a fear response would occur, and in this way obtained evidence indicating that fear of animals is not a native response. In recent years elaborate apparatus has been used to obtain ob-

<sup>6</sup> J. B. Watson and R. Rayner, "Studies in Infant Psychology," *Sci. Mon.*, 1921,

jective records of responses made by infants lying in experimental cribs.<sup>7</sup> Others have recorded the time and number of trials required by infants to solve simple problems, such as that of obtaining a piece of zwieback by an attached string. Infants are placed in standard situations with other infants to observe the social responses that may occur. By the use of such objective methods it is proving possible to obtain extremely valuable information about early mental development.

At first there was a good deal of resistance to the idea of experimenting with young children, but as the harmless character of the work became evident that resistance, among those familiar with the work, was largely broken down. Experiments on older children, as on infants, usually involve no unnatural strain. They are commonly in the nature of play or school or work situations to which the child responds in the most natural manner. In general, for all the reasons given, the method of experiment, in the study of both infants and older children, involves various limitations and occasions for caution. There is no doubt, however, about the great value of experimentation when it can be used, especially in certain fields, and we may hope for much from the improvement of objective techniques of handling children as subjects.

4. **The Method of Testing** was a natural outgrowth of the early experimental work with children. This method is essentially a procedure involving the application of standardized experimental situations to large numbers of children, or to the same children at different ages. The results are then scored and treated statistically. The method was first worked out in a formal way by Alfred Binet, in order better to detect backward children in the public schools of Paris. Binet and his colleague, Dr. Simon, presented standard problems, puzzles, and other tasks to the subjects, and compared their performance with the average performance of children of the same age. The advantages and defects of the testing method will be brought out in later sections of this book.

Applied at first to the study of individual differences in

<sup>7</sup> See especially the account of apparatus and method given in the important initial study by the students of A. P. Weiss, *The Behavior of the Newborn Infant*, by K. C. Pratt, A. K. Nelson, and K. H. Sun, Ohio State Univ. Press, 1930.