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Initiative and Cooperation in the Convalescent Hospitalized Child

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INITIATIVE AND COOPERATION IN THE CONVALESCENT HOSPITALIZED CHILD

by

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CHAPTER I

INTRODUCTION, STATEMENT OF PROBLEM, HISTORICAL ASPECTS

Introduction. The modern interest in every phase of the child's existence, as an example of which I might cite the choice of the subject of this particular thesis, is something new in the history of the world.

Not always did the child occupy the high place in which he is enthroned today. He is now nothing less than "His Majesty," and often the adult world seems to revolve only about him as a center. A veritable army of scientific persons is engaged in guarding him, from his birth to his emergence to adulthood.

Out of the vast number of thoughtful minds which interest themselves in his welfare new subjects in the field of science have developed, subjects which deal solely, or in large part, with him.

We have pediatrics itself, which has only recently emerged as a separate entity in the field of teaching and practice, although the diseases of childhood have been a subject of study since the time of Hippocrates. The first chair in children's diseases in America was established in 1860, and the Section on Diseases of Children of the American Medical Association in 1880. Today there is a department of pediatrics in each of our medical schools, and it is estimated by Veeder in "Preven-

tive Pediatrics" (50:189) that in the United States alone some three thousand physicians find their sole or chief work with children.

As to the field of psychology, its contribution to the subject of the child, in sickness and in health, is nothing short of amazing. To the older psychology which was largely speculative and philosophical in character, has been added the psychology of "behaviorism," the "instinct" psychology of McDougall, and the psychology of the "unconscious" of Freud, Jung, and Adler, with its repressions and the attendant vogue of psychoanalysis. Another group of psychologists has developed individual psychology and the field of mental measurements and psychometric testing. The contribution of each of these fields to the subject of this particular thesis will be considered in a separate chapter, as will the contribution of occupation therapy and of the Child Hygiene Movement.

In the Child Hygiene Movement we have another and quite distinct field, whose methods are sometimes even at variance with those of pediatrics (50:169). The term "Child Hygiene" in its common usage refers to "public health" methods of education, and to the development of group methods for the practical application of this knowledge.

The Child Hygiene Movement has had to do with the establishment of physicians in the schools, with "prenatal clinics" and "infant welfare," with "school hygiene," and so on.

Statement of the Problem. The purpose of this thesis shall be an attempt to measure, with such accuracy as is possible with the means which have been developed to date, the degree of initiative and cooperation to be found in the convalescent hospitalized child.

A more elaborate discussion of the psychometric test will follow, and in particular an analysis of the test selected in this instance, in the chapter which will deal with the results of the tests.

Suffice it to say here that it must be acknowledged first, that the study of personality is in its infancy; second, that the means developed, to date, for the scientific measurement or evaluation of personality are in what might be called a prenatal period. For this reason many very successful psychiatrists, neurologists and pediatricians dispense with them altogether, preferring to rely upon what they term "common sense" or "personal judgment." This is the case, for instance with Dr. Douglas Campbell, psychiatrist to the Albert Billings Memorial Hospital at the University of Chicago.

Some institutions, such as the Illinois Institute for Juvenile Research, use such tests as exist, but in regard to the measurement of such "elusive" traits of character as cooperation and initiative, rely upon the judgment of the examiner, who, as he gives the test, estimates the degree of initiative and cooperation in the child by the response to the questions.

In general, this has been the method employed by the present investigator.

The test selected was the Cavan-Burgess Test of Personality Adjustment specially devised by Mrs. Ruth Shonle Cavan, PHD., and Ernest Watson Burgess, Professor of Sociology at the University of Chicago for use with children. The Cavan-Burgess Test and Thurstone's Personality Schedule (64) which is given to every student now entering the University of Chicago, alike, were derived from an earlier test.

Two hundred convalescent hospitalized children between the ages of ten and fourteen were selected, for the test, and as a control group, the results of a test made on 1,957 normal children between the age of twelve and sixteen were used.

In addition, in order to test the reaction of the convalescent hospitalized child under the influence of a variety of diseases, certain tests for initiative and creative ability were devised by the investigator and given only to the hospitalized children. These will be described in the chapter devoted to the results of the tests.

Definition of "Convalescent Hospitalized Child." By "convalescent hospitalized child" the writer refers to those children confined in a hospital who have already passed the acute stages of disease and are now on the way to recovery. The study does not include those chronically ill, or permanently hospitalized; nor does it include those suffering from diseases which may be responsible for mental changes, such as encephalitis, toxic

goitre, etc. Students interested in these latter conditions, however, may find the author's investigation of some value.

Of all the characteristics noted in the convalescent child in the hospital, such as imagination, initiative, imitation, active curiosity, cooperation and the desire for occupation, and so on, the student was moved to select initiative because, from her experience with hospitalized children, she believes it to be possible, with the proper pediatric care, to engender in the convalescent child a degree of initiative not appreciably less than that exhibited by the same child in health. Cooperation was selected because it is conceived of as a companion quality, one equally interesting to the investigator, and one whose development was of equal importance.

Initiative as used in this thesis may be defined as "the urge to go ahead, when that urge comes from within." Cooperation as "the act of working together to one end; of combining for a certain purpose."

The Problem Further Defined. The application of this particular test to some two hundred hospitalized children, interesting as the results may be found to be, does not, in the investigator's opinion, justify itself as the sole contribution which this thesis is to make. In a field which is so new and unexplored, it behooves the student to marshal forward everything which can possibly have any bearing upon the subject at hand.

If at times, therefore, the writer appears to be advancing not scientific data, but opinion, her own and that of recog-

nized students of the subjects under discussion, her excuse must lie in the as yet scientifically little developed field in which she is working. Where there is little to be gathered, everything which can possibly be of value, must be used.

In making this study of the degree of initiative and cooperation to be found in the convalescent hospitalized child then, and in comparing his response in these respects to the response of the child in health, my intention is to enquire into the conditions surrounding the convalescent child in the hospital particularly into the mental environment built up for him by nurse, doctor, teacher, and so on, in the hospital, in an attempt to find out what particular conditions promote the development of these essential qualities, so often, by common observation, thought to be in a state of abeyance in the sick child.

My sources of information are two-fold. First; through an examination of the rather scant literature on this particular subject and also by referring to the vast literature on its more general aspects, I shall attempt to bring to this thesis the findings of that large army of scientific persons interested in the child and his welfare. Second: out of my experience as nurse in the Cook County Hospital I shall attempt to formulate my small contribution on this subject; in particular, through the aforementioned Cavan-Burgess Test which I have given to some two hundred convalescent hospitalized children, (and from the additional tests) I shall measure, with such accuracy as is possible with the means at hand, the amount of initiative and coop-

eration to be found in the convalescent hospitalized child.

Limitations of This Thesis. As has been stated previously, the most serious limitation from which this thesis suffers, is the fact that no scientifically accurate test for the measurement either of initiative or cooperation exists. The investigator, therefore, has been obliged to measure these qualities by the child's general response to the tests given.

In order to supplement and make more valuable the result of the investigation conducted, a survey of all the literature on this particular subject and its related aspects has been made. The results of this survey are incorporated in the body of the thesis. Before it is possible to understand a small and restricted segment of any subject, the whole field into which it falls must, of course, be considered.

The subject of the test being, in effect, very much narrowed down, the investigator has seen fit, in the application of its results to the general field under consideration, to broaden out somewhat. She has felt that only thus could she make the thesis of value to other students in this most interesting and as yet almost wholly unexplored field.

Value of This Study. In making this study of the relative degree of initiative and cooperation to be found in the convalescent hospitalized child and in the normal child, my intention is to indicate how these essential qualities have been, and may further be developed in the sick child through an application of the principles of modern pediatrics.

If no appreciable difference in initiative and cooperation be found between the convalescent hospitalized child and the child in health, the natural assumption might well be that the hospitalized child had had these qualities built up to normal stature in him by superior pediatric care.

If, on the other hand, it is found that the hospitalized child is deficient in these qualities an even greater need for the further application of the principles of modern pediatrics is indicated.

One would naturally expect to find, from common observation, the convalescent hospitalized child to have less initiative and to be less cooperative than the child in health, inasmuch as the degree of initiative and cooperation which the child exhibits appears to bear a direct relationship to his amount of vital energy.

But my contention is, that it is possible, through an acceptance of the principles of modern pediatrics, to build up an environment in the children's hospital so far superior to the child's normal environment that he can not only be led safely back to a normal life with his personality unimpaired, but that it may actually be found that he has benefitted by his hospital experience.

Perhaps he has had various mental problems which, if they have not actually caused his illness, at least have augmented it. For the first time in his life, in the person of the hospital psychiatrist, he comes in contact with a sympathetic person who

understands, can penetrate to, and help him solve his difficulties.

In illness, the beneficial effect of a change of scene has long been recognized. Perhaps various environmental factors connected with the child's home life have contributed to his physical state; in any case it seems to be natural for the patient to feel that they have.

It thus follows that if he be taken to a new place, and especially to a new place superior to his home, in which he has not the same old problems confronting him, that an entire new set of reactions may be expected.

Patients moved to a hospital because of enuresis are quite often cured of the habit spontaneously - merely by change of scene. (14:115)

As soon as the patient is convalescent, or before, if his condition allows it, the child, under the direction of the school teacher, who is now a recognized part of every well-ordered children's hospital, takes up his regular school work. This not only occupies his mind while he is ill, keeps him from dwelling on his physical state, but gives him the satisfaction of knowing that he will not have fallen behind his age mates because of his illness. The fear of being behind in his school work has physically retarded many a patient. And the problem of the child who is returned to normal life say a year behind the other children is of such magnitude as to discourage effort. Instead of meeting the situation with fortitude, there is a tendency to seek

the comforting reactions of an earlier and more infantile stage. Even the sturdy normal child may become a "Mama's boy" after such an experience.

If, however, his education has not only proceeded in the usual channels during his illness, but if he has learned valuable things not taught in his regular school besides, the child is released from the hospital with an actual contribution to make to the other children. If he has valuable handwork to show and information to convey superior to anything his age mates have to offer, it will be acknowledged in his world that he has lost nothing by having had, for this one year, to absent himself from the class baseball team, for instance. This will help to build up his prestige, and will go far to off-set the unbalancing effect of illness enunciated by Alfred Adler, in his theory of "organic inferiority." (1)

The Child: Historical Background. We could neither understand our present attitude toward the child, nor could we go about making an estimate of the effectiveness of our treatment of him in the hospital, without at least, even for so specific an inquiry as that of this thesis, a brief historical survey of our treatment of him in the past.

The very nurse who is responsible for the condition of the convalescent hospitalized child, whether he be full of hope and eager again to resume his life as a normal human being, whether he exhibit cooperativeness and initiative in normal degree, must of necessity, have a philosophical basis from which she may form-

ulate her attitude toward the child. Such a question as: "Are we as human beings born with a respect for, a love of, and a desire to cherish the child?" is important to her.

Our Treatment of the Child in the Past. Even the most cursory examination of the position of the child in history will convince us that we as human beings are not born with a desire to protect, to love, and to cherish, our children.

The present state which we have reached in this respect, while it may leave much to be desired, great things for the future to accomplish; is yet such an advance over the sad past, as to give us real hope that we as human beings actually are evolving toward a condition of greater humanness.

The claim that the state of civilization of a people may well be measured by its treatment of its children has often been made; and if this be so, we moderns may comfort ourselves with the belief that we have reached a higher state than has yet been reached by any civilization in the past. According to Payne (41: Chap. 1) the attitude of a tribe or nation toward its young may be said to be as good a barometer of human progress as any, and William Allen White (53:169) points out that the maternal instinct, which must also be made to include the paternal, is the single element in man's nature which has made civilization as we know it possible, inasmuch as it is the basis of all the so-called altruistic or not purely self-seeking elements.

We find, from the beginning of recorded history, and among all the peoples of the earth, all of the fundamental rights of

childhood, as we have come to see them, at times disregarded. In many instances, not even the right to life itself has been granted.

This, according to some authorities, was the result of the fact that the child as such was regarded as the property of the father who could make such disposition of his offspring as he saw fit, subject to certain flimsy tribal restrictions. For example, according to the Salic law of the Franks, the killing of a free girl before the age of twelve was punishable by a fine of only two hundred sous.

Very often a religious motive would be given as the reason for the sacrifice of the child; sometimes a sort of primitive eugenic was practiced. Among the early Romans, Romulus is said to have admonished his followers to spare from infanticide all male children except those lame and monstrous from birth. Sometimes, too, infanticide has been the result of food scarcity; a doing away with a part of the population that the rest might not perish.

But it must be confessed that, as we look into the past, we find an amount of child sacrifice, child torture, and child suffering not to be laid to any of these motives; but to be charged to human selfishness, callousness, neglect, and to downright disregard of the rights of this kingdom of smaller and weaker human beings.

It must be confessed, also, that today there still exists in the world vestiges of our attitude toward the child in the

past. Among certain savage peoples, as among the Papuans of New Guinea (53:153) and among the Marquesans who inhabit a group of islands to the southeast of Hawaii, children are killed either as food in a time of famine, or as a religious rite.

In Japan during the great famine in 1783, children were killed and eaten. As late as 1875 in China during the reign of Hoang Siu an edict warning the people to take their girl babies to orphan asylums rather than to throw them into the river was promulgated.

Again, within our own enlightened country, particularly in the cotton mills of the south, little children are made to toil early and late; veritable slaves of the machine.

But these instances, fortunately, are only present sad exceptions to what, in the past, was the rule.

History, as we look into it, does not fail to present us with golden exceptions; instances, down through the ages, when the child has been treated with respect. "The attitude of love and respect," says Edwin D. Starbuck, Director of the Institute of Character Research in the University of Iowa, (3:49) "has had its millions of sources in the hearts of parents who have felt intimations of something unspeakable and wonderful in babyhood. This attitude has been symbolized in the theme of the Madonna and child. Great souls like St. Anthony and St. Francis, Wordsworth and Tolstoy have hinted in verse and prose, the beauty of childhood."

The religion of Christ Jesus has, from the first, been on the side of the child. Jesus taught that the life and the soul of the child was as precious as those of an adult, and that to willfully destroy an infant was murder in the first degree. He elevated and sanctified babyhood and childhood. (62) His was the first voice raised against a high infant mortality.

In the Roman empire, it was the Christians who fought relentlessly against the crimes of killing and exposing children. In the sixth century Gregory, who became Pope in 590, made the traffic in children, which at that time had reached an appalling state, the subject of an apostolic mission.

In 787 Datheus, Archbishop of Milan, founded an institution for the care of helpless children. In 1380 a similar institution was founded in Venice and one in Florence in 1421. It was about the person of Saint Vincent de Paul, however, that the whole child-conservation movement of that period crystalized.

By the sixteenth and seventeenth centuries (53:160) conditions in regard to child life had become hideous indeed. Not only were infants abandoned on the steps of foundling asylums with an alarming frequency, but they were cast into ditches and sewers as well. Nor was this the only evidence of the extreme cruelty practiced against the child. A race of beggars and mountebanks had arisen who made it a business to take young children and deform them for alms getting purposes. The story is told that it was the horror occasioned by suddenly coming upon a beggar deforming the limbs of a child that caused Saint Vincent

de Paul to take up the cause of the children of Paris. A few days after this incident he started his institution for children. Later on the success of this undertaking brought royal support, the king, Louis XIII, donating four thousand francs to its support. His example was followed by his widow, Anne of Austria, with an annual gift of eight thousand francs; and in 1670 Louis XIV made the children's hospital one of the institutions of Paris.

The opening of the modern era and the triumph of the machine, instead of granting to mankind, and particularly to childhood, a release from arduous toil, had, particularly at first, the opposite effect. Children of tender years were pressed into industrial slavery, some of them being made to work as long as twelve hours at the machines. Other children, four and five years of age, were made to work in stooping positions in the mines of England; and when this practice was deplored in parliament, certain employers claimed that it was necessary to so deform these tender young bodies because the underground work necessitated a stooped over position only possible in the very young child!

The United States had a society for the prevention of cruelty to animals (1823) before it had a society for the prevention of cruelty to children (1874).

Treatment of the Child Today. The last fifty years, however, have a very different story to tell. It is said that during this period more has been written about the child, than was

written in all previous time. For this reason, the era in which we are now living has been called "The Century of the Child."

Progress in the treatment of the child from the medical point of view has accompanied the recognition of the rights of the child from the social point of view.

Indeed, one of the most noteworthy results of the tremendous interest in the child and his welfare has been the birth and rapid development of the subject of pediatrics.

The Pediatric Nurse and the Children's Hospital. Concerning this point, Dr. W. P. Lucas, in Children's Diseases for Nurses, has this to say: With the coming of Christianity

> "the nurse comes more clearly into the sunlight. History begins to record the good works of women with a deeper motive in their service; ardent followers of the Christian church. I suppose the first nurse who ever received any lasting publicity was Saint Paul's visiting nurse, Phoebe, in the first century. The efforts of the early Christians to live a communal life emphasized the task of caring for the sick, or old, or those possessed of evil spirits, and surely the little children. It must have been a little deeper note introduced into life, that of caring for the sick because you loved them and been taught by the Great Physician, who had lived and preached and died, to treat all men as brothers.
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> The Fifth Century marks the founding of many religious nursing orders, The Sisters of St. Elizabeth, of St. Catherine, the Grey Sisters, the Black Sisters, and others.
>
> Later the Knight Templars, Knights of St. John, Sisters of Mercy, Sisters of Charity, all came into being...Perhaps the 1,200 years continuous service rendered by the Augustinian Sisters of the Hotel Dieu in Paris is the most striking illustration of the driving force contained in simply caring for one's work for the work's sake. (36:6)"

To La Belle France goes the honor of the first hospital entirely devoted to the diseases of children. In 1802 in Paris, L'Hopital des Enfants Malade was established...

The Infants' Hospital in Boston, established by Dr. Thomas M. Rotch, who held the first chair in Pediatrics in the Harvard Medical School in 1888; was the first institution of this kind in the United States.

The first children's hospital in the United States was opened in Philadelphia in 1855.

They are now found in nearly all the large cities.

CHAPTER II

THE NORMAL CHILD IN HEALTH

The General Attitude. Why must an inquiry of this kind, which deals with the measurement of certain traits of character in a state of illness start with a chapter on the normal child in health?

Why does the progressive pediatrician today; why indeed do all those interested in child welfare and child study emphasize the necessity of keeping ever before the investigator's eye a clear picture of the normal child in health?

Once this simple necessity is stated, it appears self-evident.

But the truth is that pediatrician, and pediatric nurse, and even child psychologist and educator, and others having to do with children are not only guilty, constantly, of considering only the abnormal child, or certain abnormal aspects of the child, but they are prone, also, in an examination of one particular aspect of the child, to lose sight of the whole child altogether.

So prevalent is this fault in those who study the child that nearly every progressive writer on pediatric subjects emphasizes the need

1. to study the normal child in health
2. to treat the child, not the disease.

Indeed, much of the modern advance in child "culture" might be laid to the modern emphasis upon this principle. So long as the pediatrician interested himself only in the disease, little hope for the complete development of the child in all his aspects could be expected.

It is not this studen'ts wish to deprecate the work of the clinician; merely to show that it was only after the emphasis was placed upon the normal child and the whole child that the present advance was possible.

In a way, strange as it may seem, this modern emphasis upon the taking of the whole personality into consideration in the making of a diagnosis, comes to us from the Greeks. They did not have the results of the laboratory test and all the laboratory experiments, and all the details of what we call clinical medicine to check their diagnoses upon - but the fact is that they did begin with the human being, and that they considered him as a whole, insofar as they were able.

Hear Dr. George Draper in a brilliant discussion of this important question. He said at A First Colloquium on Personality Investigation: (4:42)

> "In our studies at the Constitution Clinic of the Presbyterian Hospital, we have tried to disregard this thing called disease, which for so long has been looked upon as an entity. We have tried to consider it simply as the expression of a clash between a given set of environmental forces, on the one hand, and another set of individual resistances and failures on the other. Ever since Pasteur, the eager nose and active ear and eye of the medical profession has been turned upon the environment.

We are giving clinics to the students in which we attempt to present the patient rather than his disease.

Somebody suddenly says, 'Why, that's a tall thin man.' 'Well, what else do you notice about him?' Then they (the students) are put to it; they don't know what they see. They have never seen a man before. They have seen cases of liver disease, and they have seen cases of typhoid fever, but as to having seen a human being, that is an experience...."

Dr. Draper concludes:

"In medicine we have perhaps forgotten that the only object is the understanding of man, and I suspect that that is the problem that faces the sociologist, the psychiatrist, and the criminologist. I know in clinical medicine that is the center of the problem. And the astonishing thing is how difficult it is to dislodge the present feeling that you have to study disease, which is nothing different from behaviour. Disease is only the behaviour of a very special kind of man in the face of a very special kind of environment."

It is from this point of view that "preventive pediatrics" has developed, the emphasis being not only upon the necessity of keeping the child in health, but of considering the child in all his aspects, mental as well as physical.

The extent to which many a pediatrician errs in a neglect of the latter principle may be gauged by the fact that this student in a survey of all the volumes on children's diseases in several libraries in this city found that a large proportion of these "authorities" failed to devote even a single chapter to the mental treatment or mental aspects of illness, nor to the mental attitude either of patient or physician. They spoke and wrote, (and worked, probably) as if the complete child did not exist, thinking of him only as a certain physical disease.

"Some pediatricians," says Anderson, "show an excellent knowledge built on the basis of their practical experiences with hundreds of children. But others seem to be almost completely ignorant of the fact that they are handling a child rather than a disease." (54:1015)

"Despite the impetus given to the scientific study of disease in the pediatric departments of our medical schools," says Veeder, (50:188) "in the last ten years, which has been the most desirable and needed development, the teaching of pediatrics must come more and more to center about the teaching of the child's development both mental and physical, and the way normal developments may be attained and pathological deviations and conditions be prevented..."

"For example, let us consider child psychology - a subject of tremendous importance in the development of children, in the etiology of pathological conditions, and in therapeutics. It is at present, as far as the pediatrician is concerned, on as low an empirical basis as the art of medicine ever reached. Here is a pediatric field which should be investigated, studied and placed upon a scientific basis and taught as a part of the subject. It is used every day in practice by every pediatrician and one wonders in how many pediatric departments it is considered in the curriculum. Usually its place is taken by a learned discussion of some rare condition observed once in ten years or so in the hospital ward, and the chances of its being encountered during the lifetime of the individual physician is about 1 in 1000 or more."

The Child: Some General Considerations. "Much harm is done," says John E. Anderson (54:1015) "by an assumption that children are but adults in miniature, and that anyone who knows adults necessarily knows children."

"A child," he says, "is a growing active developing adjusting person meeting the demands of a complex world. It is only within the last few decades that a serious effort has been made to determine the nature of the child and the manner in which he is brought into adjustment to the world about him. An understanding of the child's native equipment, of the manner in which he learns, of the way in which he thinks, feels and reasons, should be a part of the intellectual possession of every individual who is in any way concerned with children, as parent, physician or teacher."

The child, reiterates Cutler, (17:5) is not a miniature adult and he cannot be treated as such though his body has the

same general structure, and contains the same organs as that of the adult. The greatest contrast appears in infancy and early childhood. After seven years of age, children in their diseases resemble adults more than they do infants. The child is an unfinished product; his mind and body are in the process of growth and development and great changes are taking place in the different organs and tissues all the time.

> "In order to understand the sick child," says Dr. Abraham Levinson, "one should naturally know the well child." "In spite of individual differences," he says in a description of the 'well child', "most children show certain constant characteristics throughout infancy and childhood. The child's mental attitude is not fixed; it is constantly moving, continuously progressing. The strongest instinct of the newly-born is the craving for food. Before long the same helpless infant begins to smile and to coo, to walk and to talk.
>
> The normal child, from birth to adolescence exhibits a desire to do something. Normal infants are constantly active when awake. They cry, they laugh, they toss about; they swing their arms and kick their legs. One often wonders how it is possible for an infant or a young child to be constantly active from early morning until late at night. The child appears to have double, triple and perhaps ten-fold the energy of the adult. In fact, one finds that the amount of energy expended by a child two to three years of age is tremendous in comparison with his height and body-weight. Play, which is one of the most fundamental characteristics of infancy and childhood, is from the standpoint of the child, merely a form of work in which all of his muscles are brought into play.
>
> Almost everything a child learns to do is acquired through imitation. There are only a few functions such as eating or crying that the child does not acquire by imitation. Even the craving for food which is an inborn instinct in the baby, is said to possess some aspects which are imitative in character. As for the acts of everyday life, one has but to watch the average child at work and at play and he will find him a close copy of parent and teacher, of friend and playmate.

Although a strong imaginative sense survives in comparatively few adults, all children, or at least all normal children, possess the power of imagination to a marked degree. It is no mere coincidence that children like fairy tales. There is something in the fairy tale that fires the child's imagination, that carries him away to other spheres, that gives his mind a chance to soar in worlds beyond his own. It is unfortunate that children cannot express their imagination in writing, and that few writers know the child mind well enough to picture the flight of childish imagery. Were the child able to give vent to the phantasies of his mind on paper, we would no doubt have a poetic literature the like of which has never been seen.

The child is able to picture incidents in life that to our cold-blooded minds appear impossible. We, who see everything from the standpoint of bread and butter; we, who measure space by feet and miles, and time by minutes and hours, we are afraid to let our imaginations wander too far ahead of us. Not so the child, whose mind admits to limitation of time or space. What to us is a day or an hour may to the child seem a thousand years, for imagination travels fast and far within him. He hobnobs equally well with prince and pauper. He can make the most wonderful house without any tools; he can have the most sumptuous feast without any food; he can fight a most victorious battle without any army. He revels in the art of make-believe. He can be a king or general, fireman or policeman, a dog, a bear, a puffing steam engine or a tooting automobile. Nothing is too big nor too small for his imagination to compass, nothing too good nor too bad.

One of the most marked possessions of the healthy, normal child is a sense of happiness. The sun, the moon, the flowers, the birds, are all sources of happiness to the child. Occasional spurts of temper may for a while seem to obliterate the deep sense of joy, but after a stamp of the foot, a dash of the precious plaything, the gloom again gives way to happiness, and tears to laughter. A child will find cause for laughter in most anything, a grimace, a shrug of the shoulders, a shout, a whisper; not because of an inherent fun in the object itself but because happiness is the heritage of childhood." (35: Chap. XXXI)

"The attributes of the child," says William Allen White, (53:126) "the nature of its instinctive longings can be seen in its play, and in the character of its relations to other children, the nature of its tastes for food, games, music, love of toys, its desire to be alone or capacity for forming satisfactory companionships, and its sensitiveness to criticism, ways of reacting to success as well as to

> disappointments, its necessity for praise, its initiative and aggressiveness, or tendency toward sulkiness and depression and in a hundred other ways. It testifies to the nature of its needs in everything it says and does, in the jokes it makes, the new words it coins, the choice of its playmates, its love-objects and its objects of hate, its desire to give pleasure or to inflict pain."

The Question of the Relative Influence of Heredity and Environment. The age old question of the relative influence of heredity and environment is of vital importance to every student of the child, whether he be educator or parent, pediatrician or child psychologist. All would like a ready made answer to the question: What results may be reasonably expected from training? As to the subject of this thesis, the investigator craves an answer to the question: How far may we expect to go, by providing during convalescence a most superior environment, both physical and mental, for the child patient?

If we "go along" with those who believe that heredity is everything, we cannot, of course, expect the same results from superior pediatric care as we can if we side with the "environments."

Not so long ago, those who believed that in heredity lay the answer to every problem held the field. Such studies as those of Goddard of Vineland, New Jersey on feeble-mindedness, seemed to prove the inheritableness of mental deficiency, for instance.

A recent investigation of Guyer, (28:351) however, appears to prove that fully one third of all of our cases of feeble-mindness are accounted for on other bases than heredity.

Thus investigation on this subject proceeds, with one investigator's results appearing to contradict those of another.

Professor Mark A. May in What Science Offers in Character Education (3:10-24) says:

> "One of the most important questions in all character education is that of heredity and environment. Is it possible to build in any child any kind of character if the proper environment and proper education is provided? Or is character education limited by heredity? If so, to what extent and how?"

This question is not settled. The behaviorists claim that any kind of character may be developed in any child provided the proper training is secured. The classic utterance comes from J. B. Watson. (52:10)

> "Give me," says Watson, "a dozen healthy infants well formed and my own special world to bring them up in, and I'll guarantee to take any one at random and train him to become any type of specialist I might select - a doctor, lawyer, artist, merchant, chief, and yes, even into beggar-man and thief, regardless of his talents, penchants, tendencies, abilities, vocations, and race of his ancestors."

Others hold that certain very definite limits are placed upon education by heredity, and that no matter what's done, these bounds may not be exceeded. What are the facts?

> "The evidence is of two kinds," says Professor May. "First, evidence from the physiological, botanical and zoological laboratory indicates that the only demonstrable heredity is that of structure, such anotomical features as eye color, cephalic index, length of bones, color of skin, and the like are definitely inherited. But there is no evidence from these quarters that anything like tendencies, or susceptibilities are inherited. The other type of evidence is statistically gathered in a variety of ways and concerning a variety of traits. The conclusions from such studies usually imply the inheritance of traits and trends or tendencies, or susceptibilities." (3:10-24)

Professor May cites the study of Cyril Burt in England as an example of the latter. Burt compared 200 delinquents with 200 non-delinquents of the same type and age status with respect to ancestry and found that certain hereditary defects occur more frequently among the families of delinquents than among the families of non-delinquents living in the same environment. He lists four types of such defects: Physical, psychical, intellectual, temperamental with pathological symptoms and temperamental with moral symptoms. This last group, including such things as sex offences, violent temper, wandering, acquisitiveness, and drunkenness, shows the greatest difference, the ratio being 3 to 1; that is, the proportion of all delinquent children with a family history of immorality is 54% while the proportion of non-delinquents with such a history is 17%. Burt also finds mental defects about three times as prevalent in the families of delinquents as in those of non-delinquents. He claims, in conclusion, that the child appears to inherit certain fundamental hereditary defects, either in the way of an exaggerated or dwarfed instinct that predisposes him to delinquency.

It might be well to inquire, here, of this study, as of similar studies: how did the investigator rule out the question of environment? He takes both groups from the same relative environment, economically speaking, but what of the influence on the child of living say, in the home of a drunkard, a thief, etc?

It must be acknowledged that in many such studies which have been hailed with enthusiasm, the influence of environment

has been deliberately disregarded; e.g., the famous study of the Kallikak family.

"The forces of heredity," says Guthrie (27:115) "are mysterious, complex, and little understood. It is, therefore, unjust to parents and children alike to exaggerate the scanty knowledge we possess."

White carries forward the warning against dogmatism.

> "The laws of heredity established upon study of existing cases and their histories are useful to explain what has happened but of almost no value in predicting what will happen as a result of a particular human fertilization."

Healy and Bronner (31:205) maintain the same general thesis as a result of their studies of the success or failure of juvenile court cases. They say:

> "Our data indicate that it is an unwarranted assumption that the outcome (of cases) is dependent on heredity. Poor traits appearing in the family backgrounds of our cases do not correlate highly enough with outcome to afford a reliable criterion of potentialities inherent in the individual."

In another place (31:102) these authors say:

> "Hence there is no justification for giving special attention and special opportunity only to those who are well endowed from the standpoint of family attributes."

It seems wise to accept, concludes Professor May, the statement made by Little in his comment upon the discussion of the relative value of heredity and environment.

> "The point for us to bear constantly in mind is that both influences, heredity and environment, are operative and effective and that the greatest mental ability is not and never can be realized unless the optimum of inheritance is combined with the optimum of environment."

To turn to the pediatrician, we have the following discussion of this subject by Charles G. Kerley and G. W. Graves in the "Practice of Pediatrics," (34:17)

> "Heredity is, of course, an important factor, but environment counts for more. The young of the lower animals or of man may possess all that can be desired in the way of heredity, but if management during growth is faulty, the adult is almost certain to fall short of the normal. On the other hand, an individual without the benefits of good heredity, when given the advantages of faithful care, may develop into an adult decidedly superior in all respects to those more fortunate in birth."

As to the influence of environment, these authors continue:

> "One who carefully watches the growth and development of animals will observe that under care as to feeding, housing, ventilation, cleanliness, and exercise, those which promise but little at birth develop into perfect specimens of their kind. Similarly, prolonged intimate association with thousands of infants and growing children in private, in hospital, and in out-patient work inevitably impresses upon a physician the possibilities of growth under good management even when little has been expected, judging from the original condition of the patient...."

> "But the child is here through no choice of his own. He is to have a future. Because his health, vigor, powers of resistance, happiness and usefulness as a citizen are determined in no small degree by the nature of his care during the first fifteen years of his life, he has a right to demand that such care be given him as will be conducive at least to a sound well-developed body, and this should be our first thought and object regarding him."

While authorities clash, and students proceed with a further investigation of this most important subject, what shall be the proper attitude for the pediatric-psychologist to take?

He should, according to this student, proceed pragmatically, and apply in the convalescent ward of the children's

hospital those measures which he has by experience found to be "good." In the hospital ward may be built up an environment which can go far to correct the "bad" effects of the poor environment which the small patient may have encountered heretofore.

Only by bringing to the situation every bit of knowledge gained in every related field can the pediatrician hope to lead the sick child safely back to normal life; indeed in many instances, it is to be hoped that the child may be led to a healthly mindedness not known before.

The Child: Our Attitude Toward Him. In general, what shall be our attitude toward the child? Shall we punish him? Shall we try to implant in him all of our ideals; attempt to stamp him with our complete personality, or shall we rather proceed to attempt gradually to lead out that which we may presume is in him, so to speak?

Discipline, says Blanton (8:182) has two functions:

1. building up serviceable habits
2. modifying and changing unserviceable types of habit

It is impossible to break a habit without replacing it, just as it is impossible to think about nothing, he says. Therefore, an unserviceable habit must be replaced by a habit more in conformity with both the wishes and the natural tendency of the child and the needs of the group. One should not say "How can that habit be broken" but "What can be substituted for it."

"Punishment," he says (8:192) "involves pain, no pain, punishment. But punishment is for the purpose of changing the type of the reaction, not for the purpose of social revenge. Threats must be carried out. Inveitableness and immediateness are the two great elements in successful punishment."

As to commands, Rand gives the following rules to the nurse: (43:66)

"1. Before giving a comand take care to gain the child's attention.

2. Phrase the command in language that he can understand.

3. Enunciate slowly enough and clearly enough to be sure he follows you.

4. Do not give too many commands at once.

5. Be consistent in commands. Do not tell him to do one thing today and a contrary thing tomorrow.

6. Ask him to do only the things you really intend to have him do. Do not give needless commands to 'show your authority.'

7. Be sure you are reasonable and right in your requirements; then see that the commands are carried out.

8. Do not give commands or allot punishment in anger.

9. Do not use threats or bribes as a means of gaining obedience.

10. Do not make misbehaviour interesting by making it exciting or profitable."

"Never," says Watson, "say to the child, 'wait till your father comes home.'" By the time the father comes, the child will have forgotten the offence and his mind will not be capable in the future of connecting his offence with its punishment; he will be filled only with fury at the injustice of its infliction for a cause which he has partially or wholly forgotten.

As to the types of punishment, Blanton mentions:

1. physical
2. psychological -- acute
3. psychological -- prolonged

Acute psychological -- scolding, depriving the child of something he prizes, putting him to bed. The great advantage is that there is no physical pain. It is less likely to establish feelings of revolt and marked anger. It is wisest to give it in the form of an indeterminate sentence. It depends upon the adult when the child will be admitted to the good graces of the group.

Pronlonged psychological -- often not thought of as a punishment. It consists usually in pouting about the behaviour of the child, bringing the subject up again and again, referring to it whenever occasion arises. From the standpoint of mental hygiene, no element in the home training is more destructive. The child at first is distressed, irritable, then indifferent or actually antagonistic or he becomes anxious, moody or depressed.

Lack of memory of our own childhood, says William Allen White (53:130) on the part of the adult leads us to treat children as adults when correcting them.

This is a most frequent error. For instance, "ridicule," he says, "which might be all right with an adult and actually accomplish a corrective purpose, with the child may only bring about or emphasize a feeling of inferiority."

To revert to our original question: from what general point of view shall we proceed, in regard to the treatment of

our convalescent children in the hospital ward, let us say.

At one pole we have the attitude of Jean Jacques Rousseau who enunciated the interesting theory that nature is perfect until man corrupts her! A statement of this attitude, as applied to the child, might be illustrated by William Allen White (53:131).

> "The problem of the care, bringing up, education, mental hygiene of the child are problems in preventing obstacles to the unfolding of the personality. In order to do this wisely, the child needs to be understood in its budding possibilities and attempts at finding expression and the path made as free as possible. No human being can safely be forced into a preformed mold and the personality must be left free to develop to its full powers along the lines of its natural growth. The intelligent parent can accomplish much by understanding the child and therefore being in a better position to help. Such help comes more by assisting the process of unfolding rather than by forcing adherence to preconceived ideals. The personality can be aided in its development by adhering to the general plan which it early sketches for itself when it begins to discover its own limitations and, at the end of the period of infancy and the beginning of the latency period, begins to build up those first inhibitions and repressions which are later to be controlling factors in its fate."

At the other end of the gamut we have the attitude of the too strict disciplarian who thinks of the child as clay to be molded in a certain form which has been developed by the tribe, race, state, and so on.

All children, regardless of difference of character, and so forth, are to be subject to the same regimentation and if the child rebels, there is the rod, figurative or actual.

There are plenty of persons who will raise their voices against the second method today, but few who have any fault to find with the first.

One is reminded of the reply which Volatire sent in response to Rousseau's Discourse on the Origin of Inequality Among Men. (47:314) "One longs," he said, "to go on four paws."

This, indeed, is the position in which many modern parents and others who have to do with children find themselves. Instead of leading the child along to paths of wisdom, which the grown-ups should have, they are, so to speak, down on all fours with the child, looking foolishly up to him to lead them to some promised land.

The result is that the child has little respect or admiration for the adult today.

A child, who having had no previous experience in this world cannot expect to be compelled to find his way unguided through it, needs direction. He likes a firm understanding attitude on the part of the adult. He dislikes uncertainty and groping. He needs and he wants to learn what this world has to offer him in the shortest time possible. He cannot be expected to point the way for the adult world, until he has learned something of that world himself.

> "The child that does not get the constant support of a reliable and firm guide misses this support; the child is happier when he is aware of having nearby an unfailing counsellor, one who will decide aright what he is to do and what he is not to do," says Gruenberg in Your Child Today and Tomorrow. (26)

The result of this Rousseauvian method, carried to the degree to which it is carried in many modern schools and by many modern parents, is not only confusing to the child, but decidedly harmful. As soon as the child gets out into the adult world he encounters so much discipline all at once, so to speak, and receives so many hard knocks that he turns into a morose ill-adjusted, unhappy human being whose only wish oftimes is that he'd never been born.

The absurd lengths to which this modern theory of education may be carried is illustrated by the conduct of a summer camp-school for youngsters of from two to six years of age which came to my attention.

During the first half of the summer the children found it "fun" (and their teachers had to agree) to hammer many nails into the furniture of the cottage, including the piano.

During the latter part of the summer, their instructors, with characteristic Rousseauvian pedagogic inspiration, pursuaded the little ones that it was fun to pull all of the nails out!

Naturally a hospital ward is not the place where such an experiment could be carried out!

And this leads me to indicate that a middle ground between these two attitudes may be nearer correct. Certainly the child likes an amount of authority and even discipline and usually prefers the parent who exercises it. In the hospital ward, where discipline is of the first necessity, the child may learn

to correct much previous mis-education.

And with a necessary amount of discipline, it need not follow that initiative and cooperation decrease on the part of the child. On the contrary, with the minor practical details of life taken care of through a disciplinary routine, the mind of the child is left more free to turn itself to some creative effort, such as the weaving of stories, the painting of pictures, the execution of hand-work, and so on.

CHAPTER III

THE CHILD AND THE HOSPITAL

The Child in Sickness; Difference Between Child and Adult. Because of the rapid growth and active changes which are taking place in the child (17:5), says Cutler, in a discussion of the differences between the child and the adult,

> "the child lacks reserve vitality and his resistance is lowered. Thus he is unusually subject to infections and is more easily prostrated by disease, which, because of the instability of his nervous system is often manifested by grave symptoms. He is more quickly overcome by disease than is the adult, and is liable to sudden and unexpected death. On the other hand while the child's organism is less stable than the adults', it is more plastic; he is very sensitive to outside influences, etc., and responds readily to proper treatment.
>
> Children have very little chronic disease or very little disease evidenced by a degenerative process. On the whole, they tend to recover. Many organic lesions which become chronic in the adult may be overcome or 'out-grown' if the child's nutrition is unimpaired and he is placed in proper hygienic surroundings."

The Sick Child: His Psychology. "When a child falls ill," says Levinson, (35, Chap. XXXI) "no matter how slightly, all the normal psychological characteristics either disappear or are perverted. Fever uses up the surplus energy of the child so that he cannot be active. Since he cannot work he cannot play, for play to him is synonymous with work. Inactivity does not always manifest itself at the outset of the disease. A child may have a temperature of 103 or 104 F. and still run about. However, soon as the disease overpowers him, he not only loses all desire to be active himself but he is even too listless to try to imitate the actions of others. It becomes exceedingly difficult to attract his attention to anything outside of his illness. He becomes self-centered to a marked degree and soon loses entire cognizance of his surroundings.

Although two of the child's innate characteristics, activity and imitativeness, are notably absent when he is sick, his power of imagination becomes stronger than usual. However, instead of being directed along normal channels, the child's imagination during illness takes a morbid turn. Fairies give way to witches and sunshine to storm. The child imagines he sees robbers approaching, dogs barking, and horses tramping, and he feels that all of them together are contriving to do him harm. Of all the stories he has heard during his life only fragments return during illness. The hero does not recover his chest of gold, and the prince wanders about unable to find the princess. No good fairy comes to punish the wicked step-mother or to rescue the helpless orphans from her clutches. In short, imagination becomes hallucination and justice is turned into injustice.

As for happiness, a sick child cannot be happy. Physicians and nurses who work with tuberculous patients claim, that sometime tuberculous patients are confident they will get well and that as a class they are optimistic. In most instances, however, disease exerts a depressing effect on the patient, particularly on the young patient. The sick child drops his head on the pillow and does not dare raise it, as if he feared that something would befall him if he did. Even when he seems to be comfortable he is not really happy. The look of joy that lights up the face of the well child disappears and an expression of sadness takes its place. It is not merely pain that robs the child of his sense of happiness; it is the sick feeling, the broken spirit, the prostrating weakness. This state of mind continues until the disease begins to subside. With the onset of convalescence the child's mind begins to revert to normal and with the progress of his recovery his mental attitude once more assumes its normal cheerful aspect."

The Problem of Convalescence. "Certain children are necessarily confined to bed or restricted in their activities for long periods of time by definite and urgent disease," says Bronson Crothers. (16:174) The attitude of those surrounding the child is of the utmost importance. Every doctor realizes well enough that such children at home are usually spoiled by too much attention, while in hospital wards they are frequently thoroughly bored.

As they regain their bodily health they are almost inevitably hard to manage. For weeks and months they have been the center of attention or have had little to excite active interest. Like the rest of us, they find it distinctly irritating to be tossed back into the routine of life, when they have stood in the high places and directed the world about them or watched it go carelessly by. Obviously, the ideal plan starts as soon as the nature of the illness allows insistence upon reasonable giving way to the convenience of others. Practically, it is almost impossible to start reconstruction and re-education before a considerable degree of activity is regained. Southard, one of the most alert of psychiatrists, was in the habit of emphasizing the need of incessant interest in the problems of convalescence. Certain doctors do very real harm by neglecting patients at this stage. The general attitude is insistence upon rest to the exclusion of measures designed to enable the child to slip back into an active and responsible state of mind. Any sign of irritation, any complaint of lack of enthusiasm is apt to be regarded as an indication for more rest. The parents, and frequently the doctor, are so accustomed to the energy which prevents adequate convalescence after acute diseases, that they welcome gratefully the inclination of the invalid to stay quietly in bed or return to it on the slightest provocation.

> "In going over the histories of children, (16:174) who have developed the habit of yielding at once to an easy solution of their difficulties by developing somatic complaints, one can often see the influence of the incessant suggestions of fatigue, or even of actual disease with which they are surrounded during a long illness.

I have at present under observation a girl of fourteen who is distinctly difficult to manage, not because she is in any way incompetent, but because during a very long illness, she was, necessarily at first, and inadvertently later, forced to do as little as possible for herself.

Two years ago she had a very serious post-diptheritic paralysis. In addition to the usual weakness of skeletal muscles she suffered from an unusual amount of visual disturbance due to lack of balance of the extra-ocular muscles and to changes in the optic nerve. As she regained her strength she complained of pain in the legs. As a result she was being carefully watched by an oculist who looked with the greatest possible solicitude at her eyes, by an orthopedist who gave intelligent and competent attention to the balance of muscular action about her ankle joints, by an internist who speculated anxiously about the state of her heart muscle, and by myself who watched eagerly for the return of knee jerks and other technical signs. The grandmother, with whom the child is living, quite inevitably felt that she had her work laid out for her in forming plans which avoided eye-strain, heart-strain, and foot strain.

After a full year of what even the most confirmed specialist cannot help feeling was specialism run riot, the child was complacently dismissed by one of us after the other and returned to school a year behind in her work. Nobody took the opportunity to explain the obvious difficulties to patient, grandmother, or teacher. The child was left to fight back into normal life without help."

"A year later she came back because she was doing poor work in school, had developed tics and other annoying habits, and did not get on with her teachers or with her playmates.

Owing largely to conditions which could have been easily foreseen and with some common sense on the part of any one of the doctors could have been prevented, the child, who is now intellectually and physically competent, is in trouble. At this point she is no longer an ophthalmological, orthopedic, cardiac, or neurological case but can, if we choose, be placed among those to be treated by a psychiatrist. On the other hand, I think it more sensible to regard her as a victim of dissociated medical control and to simplify the problem of accepting the challenge of convalescence and starting to work at a disadvantage for which, as doctors, we are largely responsible."

Convalescence: Some General Considerations. Doctor Bronson Crothers has been quoted at length by the student because he has attacked a subject which has been too little studied by the pediatrician and the psychologist. It might almost be said that practically no work at all has been done in this important field. One reason for this may be the difficulty of demonstrating, in the classroom, the progress a convalescent patient makes. To demonstrate and talk about a fracture is so much simpler.

In 1927 John Bryant pointed out in Convalescence, Historical and Practical (12:1) that his book was "the only bound volume in any known language which, covering both the historical and the practical aspects of convalescence, was concerned exclusively with the cause of better convalescent care."

Inasmuch as the convalescent period, both for the nation and the individual, the child as well as the adult, is fraught with the gravest significance, this omission is noteworthy.

> "Adequate convalescent care," Bryant says, (12:2) "is today the only known way of preventing the already excessive numbers of half-cured patients from increasing, and it is the only known alternative to a continued increase in the number of beds which every convalescent hospital must provide to its chronic sick who have ceased to belong to the group of self-supporting wage-earners."

Bryant goes on to say:

> "Convalescence is almost the only branch of medicine which has made minimal progress in the last fifty years or more."

Bridgman (12:65) has proved that the average patient who has previously been sufficiently ill to require the average stay

of eighteen to twenty days in an acute hospital, has also been sufficiently ill to require an additional average period of intelligent care during convalescence; not otherwise can this average patient be considered to have sufficiently recovered in health.

What Bridgman and Bryant say of convalescence applies with as great, if not greater, force to the child as it does to the adult. Children need the most exacting care during convalescence and too often, particularly from our charity hospitals, they are shipped off to the incompetent care of inadequate homes, almost immediately following the passing of the acute stage of a disease. This is particularly true now, in the depression, when the small patient tends to be discharged long before he should, in order to make room for those acutely ill.

Not until we have one convalescent bed for every ten acute hospital beds can we feel that we have even begun to care properly for our convalescent patients, Bryant indicates.

Since this thesis does not concern itself, in general, with the problem of the physical environment during convalence, the student must limit herself in a discussion of what she might consider an adequate convalescent children's hospital. However, she must point out here that the physical environment, quite naturally, has everything to do with the patient's mental attitude; whether he shall have initiative in high degree, whether he shall be highly cooperative, and so on. This being another field, however, and one in which a great deal of work has yet to

be done, the investigator has been content to take the convalescent child where she has found him; in the wards of our city hospitals, without any idea of conceiving him in any ideal situation, such as removed to a convalescent home in the country. Such convalescent homes, the student is happy to state, have been increasing every year in the United States.

It might be well to add here, a statement by Levinson (58:378) to the effect that the convalescent home should be the center of instruction for mothers and other relatives concerning the best methods of caring for the child who has recently been ill; above all, that it should be a source of instruction concerning the best methods of keeping the child well.

Before proceeding to a discussion of treatment the student begs leave to quote several pithy statements of this problem.

"To the physician belongs the period of convalescence no less than the period of acute disease" says Vidard Dupin, a Frenchman, in a graduation thesis published in 1844. (65)

"Convalescence is as much a state of mind as of body;" to quote from the Cleveland Hospital and Health Survey, 1920. (56: 1070)

> "The reason why so many invalids remain such, or so many convalescents become invalids, is because the medical adviser fails to complete his work, to appreciate the full significance of his duties, to apply his abilities to the perfecting of his measures - in short to fill in the niche which he has modeled for himself." (63:658 Taylor in 'Medicine,' 1905, XI.

Treatment During Convalescence. In dealing with the convalescent child in the hospital the following conditions should be followed insofar as possible.

1. He should be separated from the really sick.

2. He should be given a routine gradually approaching that of the well child, always commensurate with his strength.

Many authorities emphasize the need always of keeping the sick child as nearly normal as is possible under the abnormal conditions of disease.

We have essentially normal children in our hospitals, but we do not always treat them as normal children. They need as close reproduction to normal life as is possible. It is true an effort has been made to meet the needs of the older children by an introduction on the hospital floors of the teacher of occupational therapy, the school teacher, the kindergartner, and so on, but one fundamental point has been overlooked. The child develops during every hour of the day; it is impossible to give him during a few hours in the morning the stimulus to mental growth and normal character development which will suffice to meet the varying experience crowded into the remaining hours.

After our cases have reached the convalescent period, they would profit physically as well as mentally by a more normal life; but we do not always treat them in the normal way. We still, though much has been done in the last few years to improve this condition, subject all our patients to a routine which is adapted to sick children.

On the Attitude of the Nurse. "The change in the mental attitude of the sick child is doubly pronounced if the child is at the hospital," says Levinson in Pediatric Nursing (35: Chap.XXXI). "In addition to the disease itself that tortures the little patient, several other factors add to his distress - the change of surroundings, the sight of strange faces, the shock of being away from his mother and his home. It is hard enough for an adult to change his mode of living in one day. How much harder then, is it for a child to be taken from his home, to be separated from his mother who is the only person he has known intimiately all his life, to be rushed off to the hospital that he has been taught to dread, and left to the mercy of strangers he has never seen? If the nurse understands the mental attitude of the sick child and realizes the forlornness of his condition, she cannot help but act the part of the mother during the child's stay at the hospital. She should make the hospital atmosphere as home-like as possible for the child and she should do her utmost to help him bridge the physical and mental crisis that confronts him.

The nurse who has made a study of the child's moods and habits in health and the changes wrought in these moods and habits by disease, will have patience with the little frailities that may sometimes threaten to overwhelm her. She will realize that the child who acts in a cross and peevish manner during illness has not always been so. She will know that the child who now seems too lazy to do anything for himself and demands that she do everything for him, at one time worked like a little beaver for the mere sake of working. She will understand that the child to whom no toys are now acceptable at one time spent hour after hour in playing with a jagged stick, a broken doll, a legless chair. She will appreciate the fact that the ordeal through which the child is passing is affecting him both physically and mentally. With her knowledge to guide her, the nurse will find her reward in her results - in the restoration of the child's normal, psychological functions that characterize him in time of health-activity, imitativeness, imagination and happiness."

CHAPTER IV

THE CONTRIBUTION TO THIS SUBJECT FROM RELATED FIELDS

The field of this thesis is thought of as lying somewhere midway between pediatrics and psychology. Its raison d'etre might be said to lie in the oft repeated statement of the necessity for linking the findings of modern psychology to those of modern pediatrics.

Of the separation of the two, evidence has been given throughout the thesis.

Indeed, this separation of one field of investigation from that of another field, cannot be laid at the door of pediatrics alone, but is the problem of all of our knowledge.

The development of the scientific method, as Will Durant points out in his Story of Philosophy, (20) has made specialists of all of us. By painstaking analysis, a host of scientific workers have gathered a myriad number of often unrelated facts. What we need now is synthesis; a putting together of all this information.

It has been proved again and again by the absurd published statements of men great in some one particular field that to have an understanding of one subject does not make us an authority in all. With even a rudimentary knowledge of psychology no pediatrician could be guilty, as many have been, of referring to

the need of psychiatry, and of mental testing, of occupational therapy, of trained teacher, social worker and so on in the wards of our children's hospitals as "the bunk." (61)

"The fact," says Higgins, (32:V) "that the nurse must be a psychologist has been recognized since the days of very early nursing."

> "Vincent de Paul gives in his teachings to the Sisters of Charity many hints of practical psychology. In order to help the sisters in going about their nursing among the poor more intelligently, he taught them much concerning suitable methods of approach, the importance of understanding how their patients took things into the mind, the effect of manner, the place of suggestion in their work, the means of developing attention - all set forth in the simplest manner so that he might be understood by those nurses whose education was limited."

Florence Nightingale also gives many illuminating reminders in her writings concerning attention to the mind's laws in nursing - for example:

> "Nurses have to do with living bodies and no less living minds...for the life is not vegetable life, nor animal life, but it is human life- worth living, that is, conscious forces..."

Nor is the pediatrician always the one blamed for the separation of these two fields. E. L. Richards, (61) opposes the view, held as a rule by the psychologist, that the mental health of children is the business of the educator, not of the physician. The mental health of children, this authority says, should be the active concern of physician, teacher, parent, psychologist, priest, psychiatrist, social worker, pediatric hospital nurse and every other constructive force of the social organism that comes in contact with the welfare of children. The separa-

tion of mental health and physical health, is the residium of a dark age in the history of medicine. It has taken the medical profession decades to realize that a human being functions not in segments of mind and body, but as a finely integrated organism; that every instinct and its accompanying emotion affects every cell in the body.

The contribution which pediatrics may hope to gain from psychology is ably summarized by John E. Anderson in an article in the Journal of the American Medical Association, (54:1015-1020) He says:

A. "Despite the popular loose use of the word psychology, there is a considerably body of able scientific investigators who are gradually building up a substantial body of knowledge about human behavior.

B. As the physical health of children is improved, questions of mental health, learning and adjustment arise and more and more demand is made on the scientist and physician for information and guidance.

C. The contribution of psychology to pediatrics is both general and special. The first consists of a background of terminology, concept and understanding, and the second of technique such as the intelligence test, and such specific results as may be expected from the coordinated attacks of physician, psychologist, sociologist and educator on the life of the child, shown in the recently developed institutes for the study of children.

D. The psychologist may expect from the pediatrician in the future a sympathetic understanding of the basic principles of child life and the mode of modifying child behavior.

E. Through contacts with the child in school, on the playground, at home, at work, and at play, en masse as well as individually, the forward looking pediatrician can supplement his contacts with children as patients in such a way as to become an intelligent and wise counsellor on all the aspects of child life."

1. The Contribution of Behaviorism.

"Ever since my first glimpse of Dr. Holt's 'Care and Feeding of Children,' says Dr. Watson, in his Psychological Care of Infant and Child (51:3), "I hoped some day to be able to write a book on the psychological care of the infant. I believed then that psychological care was just as necessary as physiological care. Today I believe it is in some ways more important...

Once a child's character has been spoiled by bad handling, which can be done in a few days, who can say that the damage is ever repaired?

We have only just begun to believe that there is such a thing as the psychological care of infants and children...

Since the behaviorist finds little that corresponds to instincts in children, since children are made, not born, failure to bring up a happy child, a well-adjusted child- assuming bodily health - falls upon the parents' shoulders. The acceptance of this point of view makes child rearing the most important of all social obligations."(51:7)

"The rearing of children," says Watson, "instead of being an instinctive art, is a science, the details of which must be worked out by patient laboratory methods." (51:12)

"Mothers are now asking themselves this question: 'Am I not almost wholly responsible for the way my child grows up? Isn't it just possible that almost nothing is given in heredity and that practically the whole course of development is due to the way I raise it'?"

The behaviorist claims that he has found by experiments on the newly born that it is born with only two instinctive fears:

a. Fear of loud noises

b. Fear of loss of support (51:26)

The one situation which from birth will call out the response of rage is interference with the infant's activity.

The result of experiment showed that -

a. There are no instinct

b. That we build in at an early age everything that is later to appear.

The behaviorists believe (51:41) that there is nothing from within to develop.

"If you start with a healthy body," says Watson, "the right number of fingers, toes, and eyes, and the few elementary movements that are present at birth, you do not need anything else in the way of raw material to make a man, be that man a genius, a cultured gentleman, a rowdy, or a thug."

"This doctrine is almost the opposite of what is taught in the schools at the present time. Professor John Dewey and many other educators have been insisting for the last twenty years upon a method of training which allows the child to develop from within. This is really a doctrine of mystery. It teaches that there are hidden springs of activity, hidden possibilities of unfolding within the child, which must be waited for until they appear and then be fostered and tended. I think this doctrine has done serious harm. It has made us lose an opportunity to implant and then to encourage a real eagerness for vocations at an early age. Some few thousands of undergraduates have

> passed through my hands. Only in the rarest cases have I found a senior college student with his mind made up as to what vocation he will enter when he leaves college...There is no reason why he shouldn't pick out his career at twelve or earlier..."

Assuming then, according to Watson, that parents have "built in" certain undesirable reactions into the child, and that these are exhibited in the hospital ward, what can the pediatric nurse who has been psychologically trained in this method do to eradicate them?

Watson gives many suggestions of what he calls "unconditioning."

> "Suppose," he says, (51:67) "your child has suddenly been made afraid of the dark, don't rave and storm at it. Start unconditioning at once. Put the child to bed at its usual time. Leave a faint light in the hall and leave the door open. Then every night after putting the child to bed close the door a little more and dim the light still more. Three or four nights will usually suffice."

Rage and temper tantrums may be controlled in the same way.

2. Psychoanalysis.

Practically all progressive pediatricians acknowledge the contribution which has been made by psychoanalysis to their field. All, however, sound a warning against the use, by the lay person, of psychoanalysis. Because the psychoanalyst has taken over the language of the everyday world, every man who has read one of Freud's books imagines himself a psychoanalyst. It is probably more difficult to treat the human being mentally than it is to treat him physically - if one can speak of a mental and a physical condition apart one from the other - which

one, in reality, cannot.

If you need a psychoanalyst, says the pediatrician, get a trained one.

In respect to the psychoanalytic approach, Bronson Crothers, an able pediatrician, has this to say: (16:159)

> "No one who follows the modern literature, either in technical journals or in the lay press, can fail to have been impressed with the very great development in psychoanalysis in recent years. Furthermore, there is no question that effective prevention of mental ineffectualness depends on proper management in childhood. The most casual study of adult neuroses and psychoses reveals a succession of misunderstandings and maladjustments reaching back in many cases to early childhood. On the whole feeblemindedness is a simple problem in comparison with the urgent difficulties of intelligent or even brilliant people who cannot fit into their environment."

Here again the practitioner whose main duty is the routine supervision of bodily ills must keep his head. Psychoanalysts differ among themselves fully as much as the ordinary practitioner of medicine....

> "If we recognize at once that only the trained psychoanalyst has any authority concerning developed mental disturbances as we ordinarily define them, we can with more grace claim that inferences drawn by them concerning the mental life of the ordinary child can and should be subjected to careful scrutiny by those dealing more constantly with children. The family doctor, the teacher, the priest, and even the much abused parent are not necessarily unable to observe and correct..."

(16:160) If we are to undertake the task of attempting to straighten out mental disturbances we must start with three convictions:

A. It is by no means clear that the child is the one to be studied with most attention. (It may be the parent

who needs to be psychoanalyzed.)

B. No opinion worth giving can be given after perfunctory study.

C. Any abnormality or suspected abnormality which is preventing the child from getting on in a satisfactory way is of great importance.

3. Child Hygiene Movement.

The Child Hygiene Movement began in America when physicians were added to the public schools in an effort to prevent the spread of contagious diseases, Borden S. Veeder points out in Preventive Pediatrics. (50:172)

It continued with the establishment of summer clinics for the care of sick infants. In 1907 the American Association for the Study and Prevention of Infant Mortality was organized.

The summer clinics were next extended to year round clinics with visiting nurses. Pure milk stations were opened and prepared formula were given out.

The Pre-Natal clinic was the next to develop, and from that interest spread to the pre-school child.

Finally, the Infant Mortality Association metamorphosed itself into the Child Health Association in 1909; and its later amalgamation with the Child Health Organization which had been developing in the field of health education formed the present American Child Health Association in 1923.

In the work of all of these organizations the guiding motive has come to be recognized as one of education rather than

medical relief.

That the Child Hygiene program has been effective is shown by the reduction in infant mortality in the United States from 149 in 1900 to 77 in 1923. The effect of the whole movement on the health of children in the United States is, however, incalculable.

> "Progressive pediatricians realize," says E. L. Richards (61), in speaking of the mental hygiene movement, which is really part of this general child health movement, "that the mental hygiene movement aims to study the behavioristic growth and development of a child in the same manner in which preventive medicine is studying his nutrition and metabolism."

But it is not easy to know how to proceed, this authority rightly states. Mental hygiene is not a technique with which the pediatrician can equip his office, like the X-ray and basal metabolism. It is rather, an attitude of mind, one which calls for willingness on the part of the physician to give time and patience to talking with mothers, and often with fathers, about the home and school setting; it calls, furthermore, for knowledge of some of the practical causes of individual childhood misfitting that result in poor mental health; such as discrepancy between a child's intellectual ability and what home and school expect of a child his age; the emotional reactions of a child to realization of physical handicap; and a poor start in habit training during childhood. It is here especially that the opportunity of the physician is seen. No other member of society has so good a chance to start young mothers right in what is one of the most important features of mental health. Good habits of

managing fear and anger are of equal importance with habits of regular feeding and sleep and bowel movements. Nursery schools, habit clinics, and pre-kindergartens throughout the country are doing their best to give parents education in starting the young child with a wholesome set of habits of emotional control. Yet, Richards protests, their influence is too often contradicted by a physician who considers all this "the bunk."

4. The Contribution of Occupational Therapy.

The value of occupation therapy has been attested to by the majority of all those working in pediatrics and in the fields related to it.

"Occupation therapy," says Southard in A Kingdom of Evils (44:552), "is a most important branch of mental hygiene. The theory of it is incomplete. The value of what has been done is not doubtful."

The theory of occupation therapy has been ably set forth by William Rush Dunton in Occupation Therapy, a Manual for Nurses, (19) "The mechanism by means of which a recovery is brought has been the subject of considerable inquiry. It may be summed up by the word 'substitution,' or if we prefer, 'replacement.' It is well known that but one idea can occupy the focus of the attention at a given time."

In the case of the sick child, the problem, therefore, becomes one of the substitution of thoughts of illness by constructive creative thoughts. A child whose attention is riveted upon a thrilling idea or problem cannot be brooding over his own or

other patient's conditions.

Dorothy Canfield Fisher, in Self Reliance (23:51) attacks the heart of this problem of occupation therapy when she says,

> "The presence of raw material stimulates the creative instinct, the noblest and most fertile of all human instinct, and the presence of finished products stimulates the ignoble instinct for personal possession, one of the most futile of human instincts. Every such successful mastery of raw material, "she says again, "means more well-founded courage and self-confidence in the shaping of life itself."

One of the best accounts on occupation therapy which this investigator has found is by Susan E. Tracy in Cutler's Pediatric Nursing. (17)

When a child is overtaken by illness it is usually felt to be an interruption to his education. But this, she finds, is an impossibility because "wherever a child finds himself, there he finds his education."

"The education of the sick child may be most unhappily developed or it may be a constantly increasing joy."

She suggest the drawing of a "magic" circle, the child's mind, the center, which the sixteen points mark as many lessons on the various aspects of "life"; the aspects being: color, harmony, water, plants, animals, people, food, clothing, shelter, light, silence, sound, feeling, motion, form and rhythm.

The development of the lessons lies with the teacher or the nurse, and upon her own imagination, and incidentally upon the imaginative results which she can kindle in her small patients, rests her success.

For instance, in the lesson upon people, Miss Tracy suggests:

"People! The crowning creation. Dolls of all nations, times and events now enter. Paper dolls, rag dolls, improvised dolls, dolls from 'Mother Goose' and Hans Anderson; loved, recognized and imbued with life by the little patient. No child need ever be shut away from people for the butcher doll calls at his bedside. The fisherman takes him out in his dory. Mother Hubbard finds a bone for his dog, and little Puck whisks him around the world."

When she reaches the lesson on "sense training" Miss Tracy truly inspires her reader with an immediate desire to enroll for these lessons, be he sick or well, nine or ninety.

Quoting from Madame Montessori on The Silence, she writes (240:43):

"I have invented several games of silence...I call the children's attention to myself, telling them to see how silent I can be. I assume different positions; sitting, standing, and maintain each pose silently, without movement. A finger moving can produce noise, even though it be imperceptible. We may breathe so that we may be heard. But I maintain absolute silence, which is not an easy thing to do. I call a child and ask him to do as I am doing. He adjusts his feet to a better position and this makes a noise! He moves an arm, stretching it out upon the arm of his chair - it is a noise. His breathing is not altogether silent; it is not tranquil, absolutely unheard as mine is.

During these maneuvres on the part of the child and while my brief comments are followed by intervals of immobility and silence, the other children are watching and listening. Many of them are interested in the fact which they have never noticed before: namely, that we make so many noises of which we are not conscious, and that there are degrees of silence. There is an absolute silence where nothing, absolutely nothing, moves. They watch me in amazement when I stand in the middle of the room, so quietly that it is as if 'I were not.' Then they strive to imitate me and do even better...When the children are trying in this way, there is established a silence very different from what we carelessly call by that name. It seems as if life gradually vanishes and that the room becomes little by little, empty, as if there were no longer any one in it.

> Then we begin to hear the tick-tock of the clock, and this sound seems to grow in intensity as the silence becomes absolute. From without, from the court which seemed silent before, there came varied noises; a bird chirps, a child passes by. The children sit fascinated by that silence as by some conquest of their own. 'Here', says the directress, 'here there is no longer any one; the children have all gone away.' Having arrived at this point, we darken the windows, and tell the children to close their eyes, resting their heads on their hands. They assume this position and in the darkness absolute silence reigns. 'Now listen,' we say, "a soft voice is going to call your name.' Then, going to a room behind the children, and standing within the open door, I call in a low voice, lingering over the syllables, as if I were calling from across the mountains. This voice, almost occult, seems to reach the heart and to call to the soul of the child. Each one, as he is called, lifts his head, opens his eyes as if altogether happy...."

Miss Tracy continues:

> "Naturally following this, a lesson on sound will be expected; sounds of wind, water, rain, music."

What is the difference between sound and music? The simplest instruments can be tried. A row of glasses of different sizes, partly filled with water, give varied notes....and so on, till we, as hospital children, have learned to distinguish all of the shades of color by an arrangement in glasses of a series of colored waters. Till we have developed all of the senses in a way, indeed, that the normal healthy child, unless he have unusual advantages in the way of education, can never have done.

The development of the sense of touch, for instance - what is done for it in the usual school? Nothing. What could be done for it? The field is without limit. We can learn, by the simple experiment of putting objects of various textures and

forms into a closed bag and inserting our hands, to name objects from their "feel," for instance.

We can learn to distinguish hundreds of degrees of smoothness - roughness, of hardness - softness, of warmness - coldness,- squareness - roundness, and so on ad infinitum in the hospital ward.

Being in a different melieu from our normal one, we can, while in that melieu, develop ourselves in a thousand new directions, never dreamed of before.

I think it can be seen, even from this brief description, the possibilities of building up in the convalescent hospitalized child initiative and cooperation to a high degree.

Development in all of these directions sustains the character and compensates for whatever loss of normal activity illness necessitates.

A friend of this student's, a man nearing fifty who was afflicted with an apparently incurable skin disease - (of the hands and face, too) who was, when he entered a charity hospital, without hope, or the desire to live, took up charcoal portraiture in the hospital ward. Although in an entirely depleted condition, physically and mentally, he developed while in the hospital, such a skill in portraiture that, upon his discharge, he has been employed by the doctors whom he met there, to do portraits of themselves and their friends. Probably through his success in this one field, his skin condition cleared, and at present he is holding a widely advertised exhibit of portraits.

If a result like this can be obtained with a broken man of middle age, what could we not achieve from similar work with the child!

The field, as I states before, is limitless. The use of water color, and of modeling clay, of needle, of pencil and pen, the development of the child's creative nature - everything indeed is possible.

> "Every piece of work is a witness to power," says Miss Tracy, "to know that illness has not deprived one of power even though that power be manifested in new and heretofore unvalued activities, raises one at once from the ranks of those 'laid on the shelf.' The more creative the work, the greater the power manifested. Man, woman and child will bow before one who can express beauty with that which has formerly been accounted worthless."

> "Two years ago a series of tests were made in the pneumonia and empyema wards in the children's department of the Boston City Hospital. All of the cases were of the acute type. No child was well enough to be sent to the Convalescent Home. Children with miserable ashen faces, with little breath, propped up with slow-discharging wounds, coughing children, nauseated children, children with temperatures, high and low, a truly abject set of little ones they were. In all cases of severe illness a sense of insecurity is experienced. Even a delirious patient may be helped just here by occupation therapy. The simplest manual labor is to hold something; the person who feels insecure wants to hold on to something... Sometimes a sick baby will hold a wilted flower all day long. A pretty paper fold is of much value here. The sickest child in this ward, a boy who had no breath to use up in words, held out his hand for a flying bird. The next step was to make the bird fly, which called for finger action only..." (17:456)

These children made Indian splint baskets, stuffed soft toy animals, made several friezes telling the Noah's Ark Story, etc.

> "Off from a large ward filled with cardiac cases was a smaller room for a few patients. In this small ward were

two little girls. The only thing which they saw or could see was a third child who was apparently dying and suffering greatly. Suddenly an other object crossed the field of vision. A 'Berkshire Bird' flew in! Just one little canary in a ring - but what a wonderful change he wrought! The attention of the two little girls was held captive and soon three more canaries were in sight. All the conversation in the room turned to bird making and love and admiration was lavished on the new comers..." (17:457)

If such results from occupation therapy may be obtained from its introduction among the really sick, its value in the Convalescent ward is hardly to be exaggerated. The convalescent child may in the hospital develop talents which will indicate to himself and to his parents, perhaps the direction which his whole future may profitably take.

From the Child Health Organization of America, which has its head-quarters at 156 Fifth Avenue, New York City, nurses and others may secure useful educational material which can be used to advantage in the convalescent ward.

A. J. Bell, in Feeding Diet and the General Care of Children (7:138) gives a description of this material.

"The Little Vegetable Men.

One day there came to Cho-Cho, a tiny elf who loved children and to the Health Fairy three queer looking little men. The first had the head of a beet and his clothes were made of dull green leaves. His shoes and his socks were beet colored and in his hand he carried a green hat.

The second little man was a white onion," and so on.

5. Contributions from Preventive Pediatrics.

"Pediatrics in the past, like medicine in general, has been chiefly interested in the study and treatment of disease," says Veeder in Preventive Pediatrics. (50:3)

"In recent years an appreciation of the greater importance of the prevention of disease, rather than its treatment and cure, has been making rapid headway, a viewpoint which more than ever stimulates the study of etiology and mechanism. Pediatrics has not only shared in this movement, but as a matter of fact is looked upon as a leader, and so in the past ten or fifteen years there has been a rapid growth in the development of a movement which may be termed 'preventive pediatrics.' This is not a satisfactory term, as what we have in mind is much more than the prevention of disease. Preventive pediatrics is rather a mental viewpoint from which the subject of pediatrics is approached. There is nothing particularly new or peculiar in the subject matter which is included under the term 'preventive pediatrics.' In pediatrics, as the word is usually interpreted, the conception is the study of the diseases of childhood, and the two terms are frequently used interchangeably. However, the approach to pediatrics is through the study of disease, or medicine; in preventive pediatrics, using the term for want of a better one, and because it has a certain usage, the approach is through the child. It is this conception, in fact, which entitled pediatrics to be studied and practiced as a specialty. A disease has the same fundamental etiology and pathology whether it occurs in the child or the adult. Only a few conditions are distinctly peculiar to childhood and these are related to development. As the term is usually used, the practice of pediatrics is in reality the practice of general medicine less the degenerative processes. In preventive pediatrics we are primarily interested in the child, in his normal growth and development and in the means of attaining normalcy. We are interested in the prevention of morbid or abnormal conditions through general means and by specific measures. Further, and here perhaps we depart most from what is ordinarily included under the term 'pediatrics,' we are interested in his normal mental development and psychology. We have learned by studying the child that no small part of the deviations from normal health and development have their origin not in biochemical or biological causes but in habits, mental reactions, and psychological conflicts. We venture to prophesy that this last field which is on the threshold of being opened up will write the next important chapter in the scientific development of pediatrics.

Although pediatricians (50:5) are multiplying with amazing rapidity in response to the demand of the general public for a physician to care for children who knows something more than the diagnosis and treatment of disease in childhood and who has the knowledge to guide the grwoth and development of the child, it is a fact, and will remain so for many years, that the vast majority of

American children will come under the care of the 'family physician.' The last few years have witnessed many of these men coming into our medical centers for post-graduate courses 'to learn something about children,' as one expressed it. They have been stimulated to this in the majority of cases by the demands of their clientele, and their own realization that the relation of the physician to the children in his practice is something more than simply taking care of them when they are sick."

"What the author does insist upon (50:7) is that before one can intelligently practice pediatrics he must have a knowledge of the child and his development. Perhaps after all this is large part of what we are talking about when we use the rather vague term 'preventive pediatrics.' Perhaps a better term for the viewpoint with which we approach the subject would be 'developmental pediatrics,' as it includes so much more than the prevention of disease."

S. J. Baker, in Healthy Children (5:121) says:

"Prevention and care of nervous diseases occurring during childhood are important for two reasons: first, because the nervous child suffers intensely from its affliction, and second, because nearly every type of nervousness in adult life can be traced to its beginning in childhood. Any one who has suffered from a nervous disorder knows that such a handicap stands in the way of normal,mental and physical development and that it is likely to make life almost unbearable at times. Much of this suffering during adult life is unnecessary and can be prevented in childhood. Also the methods of correcting nervousness after it has been established are much more simple and effective in early life than they are later.

The nervous sytem of a child is exceedingly complex, It is unstable and easily affected.

If the nurse or any other person who comes into contact with the child is nervous and temperamentally high-strung, the condition will react upon the child.

The causes of nervousness are either physical or emotional...The emotional causes seem to be the more important. Even before they are able to express themselves, children are extremely sensitive to emotional reactions. Sudden fright, and unexpected noises, being awakened suddenly, violent jouncing up and down, or being danced about, too little sleep, late bed-time, over-handling, over-fatigue, all lay the foundation for nervous disorders.

Lack of understanding of the child and consequent nagging arbitrary rules tend toward the formation of the habit of self-suppression in early life, and to emotional out-bursts later.

CHAPTER V

INITIATIVE AND COOPERATION

What is initiative and what is cooperation? Indeed, what is personality itself? What are the means which have been developed to date for the study of personality, and particularly for the study of these two character traits or elements of personality? If we can find out what initiative and cooperation are, what technique can we suggest for the fostering or development of these two traits in the normal healthy child? In the convalescent hospitalized child?

The answer to some of these questions has been suggested by the material presented in this thesis. The behaviorist, for instance, would say that we may develop any amount of initiative in the child if we could only condition him properly, especially in early childhood. Similarly, he would claim that we could make the child as cooperative as we would. If a child of fourteen has little initiative and little desire to cooperate with others, Watson would lay this fault at the door of his mentors and parents.

"Personality," says John B. Watson in Behaviorism is but the end product of our habit systems; it is the sum total of ones habit dispositions."

A sane and succinct statement of this question of per-

sonality and its development this student finds in Veeder (50: 70).

> "An infant is born into the world with certain instincts associated with corresponding emotions which are a part of its inheritance. Psychologists differ as to the number and classification of these instincts and emotional reactions, but the most important are fear, rage and love. To these might be added curiosity, and wonder, disgust and repulsion, self abasement and self assertion, and display. Different individuals possess these instincts to different degrees, seemingly the result of inheritance but to some degree they are shared by all. They play an important role in the development of the individual, both in habit formation and in that subtle something which we define as personality. These instincts and emotions are brought into play by various kinds of stimuli, which are in large part determined by the environment with which the individual is surrounded. Thus we have working two forces in the development of the complete personality - an inheritance factor and an environment factor. When these instincts are brought under control and properly guided the individual learns to adjust himself to his environment and surroundings; but when there is a failure of control-faulty development, problems arise that not only lead to abnormal mental development, but have a deep and far reaching influence on the physical well-being of the child.
>
> Later on more complex tendencies or traits appear as imitativeness, play gregariousness acquisitiveness and the like which are likewise important development factors.
>
> As we cannot alter the instincts with which the child is endowed through inheritance, our work and problems become chiefly those of guidance, in order that the emtional reactions may be brought into rapport with the envionment and in this way character and conduct be molded...."

At times, there is a failure (50:71) of adjustment, he says elsewhere, usually through faulty training or environment, and reactions develop which we know as conflicts. Thus a child through jealously of a younger or older brother or sister will reach the conclusion he is no longer loved by his parents; or through fear will develop vomiting attacks, and so on.

Initiative. "Initiative," according to the Century Dictionary, is "the introductory or first step in some process or enterprise;" it is "the right or power of initiating or originating something."

"Are organisms self initiating?" asks Coleman R. Griffith in A General Introduction to Psychology, (25:34)

> "The organism is, in spite of its community with 'The world of nature,' an independent unit, and it is not unreasonable to expect that such an independent unit should have powers of initiative or dynamic powers characteristic of it just as other semi-independent worlds set themselves against the rest of the universe.
>
> Our doubts are not about the fact of initiative but as to what that fact means, how we shall understand it..."
>
> "Initiative," sayd Swift (45:91)" is admittedly essential to an efficient life. Everyone knows men and women of good ability who do not count simply because they never start anything that is worth while; and when they join with others they follow along behind, like camp followers on the trail."

Initiative to be of value must be directed toward the accomplishment of something. The worth of that something is a matter of intelligence and knowledge...Training in initiative consists in getting children to set a goal ahead and then go after it...In child training originality does not mean getting an idea that has never occurred to anyone. It is new to the boy or girl, it is an original thought, regardless of the number who may have worked it out before.

"Children want something to do," this authority points out, and when nothing is supplied, they find it for themselves. Herein lies an opportunity for parent, teacher, and hospital nurse as well. And indeed not only an opportunity but a duty.

for if these adults to whom the child is entrusted do not provide a "tempting environment," a life that is interesting and indeed thrilling, the child will seek such a life elsewhere - and from that elsewhere there come our gangsters and the other anti-social elements of modern life.

Initiative to be serviceable in training must be directed toward an end. The goal may be only a little way ahead, as in constructive work, or it may look far into the future. At all events, the habit of setting oneself a task and going through with it is the significant factor.

Development (46:100) of initiative lays the foundation for real will power. Boys who have been trained to "stop and think" before acting behave more intelligently than those who act on impluse.

Training in initiative is training in the choice of ways and means of reaching a goal, of solving a problem or of answering a question. It is development in reflection - in suspending decision until reasons, pro and con, can present their case. Then action will follow. This is training in using whatever intelligence a child may have, this author concludes.

Initiative, Interest and Attention. Whether or not we shall start soemthing depends upon our interest. If we are interested, it usually follows that we act. The development of initiative thus rests upon the arousal of interest.

"What is interest?" inquires Frederick Elmer Bolton in Everyday Psychology for Teachers (9:156) in a chapter entitled

"Motivation and Initiative."

He quotes from Henry James.

> "Whenever we like anything, whenever we pay attention to anything, we are interested in it. Things which interest us are voluntarily and purposely attended to without external compulsion. A majority of the stimulations of the senses never receive attention because they have no interest for us." (33:402)

Bolton continues:

> "Millions of items of the outward order are present to my senses which never properly enter into my experience. Why? Because they have no interest for me."

My experience is what I agree to attend to. Only those items which I notice shape my mind. Without selective interest, experience is an utter chaos. Interest alone gives account and emphasis, light and shade, background and foreground - intelligible perspective, in a word. It varies in every creature, but without it the consciousness of every creature would be a gray, chaotic indiscriminateness, impossible for us even to conceive.

Many teachers seem to regard interest merely as a means of getting pupils to do disagreeable tasks; he continues, a sort of sugar coating which will render bitter pills less objectionable...But while it is desirable to produce interest in order to secure study, interest as an end is desirable. One of the great aims of education should be to stimulate abiding interests in the studies themselves, and also to make the studies lead to permanent and desirable life interests. Spencer tells us (Education, p. 127) that "As a final test by which to judge any plan of culture, should come the question, 'Does it create a pleasurable excitement in the pupils'?" Again he says that if a given

course of study "produce no interest, or less interest than another course, we should relinquish it."

There is now a strong inclination on the part of many, he concludes, to measure the success of years of teaching not by the quantity of information one possesses on Commencement Day, but by the degree of interest engendered in the lines of study followed. The attitude of mind toward study is, to them, the most important point. (57:147)

In regard to interest and effort Bolton points out that many make the mistake of regarding interest and effort as directly opposed. Such is a very erroneous interpretation. Interest may, in fact, lead to the most strenuous effort. The greater the enthusiasm in one's work the better it will be accomplished.

But what does the pediatrician have to say upon this question of interest and the attention?

> "If we control attention," says Porter in Applied Psychology for Nurses, (42:89) "we control thought, and so hope and courage breeding thoughts can replace despairing and fearful ones...There is no blank in working consciousness..."
>
> "Spontaneous attention," says Higgins in The Psychology of Nursing (32:231) in a discussion of the methods we may use to gain the attention of the patient, "is given to rhythm. This is one of the reasons why music may be used with curative effects as well as for entertainment. Listening to certain kinds of music requires no active effort, consequently the patient suffers no exhaustion."

The nurse may wisely use the hint given by James that if the new is associated with the old in some effective way, interest naturally follows from point to point.

The nurse also needs to remember the rhythmic character of attention. In planning the amusement of patients the nurse may learn something of skill from the lecturer who "holds his audience." It is noticeable that he knows just when to introduce his anecdotes, when to use black board or pictures. If the rhythm of attention is not taken into account there comes over the audience a general rustling of programs, whispered comments, shifting about - all indicating a lack of concentration.

Every professional manager of amusement knows the pulse of the audience's attention. What will bring back the keen edge of interest?"

This is the entertainers as well as the hospital nurse's and teacher's problem. Do not expect to be able to command the child's attention. You must lure him, charm him; it is up to you to interest him.

In teaching a patient a new occupation she suggests it is sometimes better that he be apart from the other patients. "Getting started" or the initiation of a new process is sometimes best accomplished if he is in a quiet corner by himself.

On the other hand, this getting started is sometimes best accomplished in the group.

In this, the cooperation of the other small patients comes into play.

"Let me show you how; it's easy," says a child who has learned how to make a bird or toy, to the newcomer in the ward. In this statement, indeed, both initiative and cooperation is

displayed on the part of the small patient.

Initiative and Leadership. Leadership and initiative are closely allied, and children who are leaders are those who also have initiation.

Desire for leadership is closely related also to a desire for distinction and independence. From early years the child shows a desire for leadership.

Observations in the nursery school bring out how early children show ability in leadership. The child who from the age of three begins to have success in handling other children will have had an immense amount of practice by the time he is an adult, Faegre points out. (21:248)

In the Kindergarten each child is given a turn to choose a game or song or dramatization of some story in which this desire for leadership is gratified. Occupying executive positions in the school government or in otherwise directing these groups have great value toward leadership. The timid gain self-confidence, and the aggressive get their chance to work off their bullying tendencies constructively.

In The Child, His Nature and His Needs (40:93) we read,

> "Every game is at bottom a setting up of artificial obstacles for the sheer fun of getting the better of them as we see in the working out of puzzles or in tennis. This propensity to make a game out of difficulties can be used to get children to do useful things that would otherwise be distasteful."

This has long been used in the Kindergarten. Often times the child who dreads the task most in the beginning becomes the leader in this particular game and others through the enthusiasm

of members of the group become less timid. Experience in the Kindergarten has shown that wisely directed play is the best beginning for serious study. This modern educational doctrine of interest has its place in the hospital life of the child.

It is good to have children make a game of things they dislike to do. This does not mean, however, that they should do only the easy tasks or drop the harder ones the moment the latter become distasteful. Instead, we should use every possible means to have children go at the hard things with a hearty desire, not to let the difficulty frighten them, but on the contrary let it serve as a challenge to will power. Otherwise, we shall run the danger of having them grow up morally flabby.

Swift, (40:120) has shown how it is possible to utilize the gang spirit of boys, and the same could be said of girls in developing real leadership, and the finest of loyalty to the leaders and mandates of the group. He quotes Puffer to show that leaders even in the gang excel in truthfulness, perseverence, bravery, reason, shrewdness, and independence. Mrs. Jacob A. Reis says she found that it was easy to convert the gang by first enlisting the fealty of the leader. Many a wise teacher had also discovered that disciplinary problems disappear when the leaders in mischief are induced to array themselves on the side of the teacher.

Children can understand that to deserve to be leaders they must train themselves. We all know what an ordeal taking medicine is for some children. What a fuss ensues. Make a play out

of it and use some of the nursery rhymes so dear to the hearts of our little ones, or use one of the many counters, as, "one for the money, two for the show, three to get ready, and four to go." If he is one of a group the other children follow in counting and thus our little hero feels he has done his bit. Just notice this in a group of new boys when the medicine tray appears. "Come on boys, who is going to be the first to take his medicine?" The first boy then is the leader and from then on there are many vying for leadership. If there is some reluctance in a group of girls why not start in on the doll that the frightened child is holding. Play it out, give the child some cod liver oil, if it happens to be the medicine. For the time being the interest is taken off the child and centered on the doll. "Now your dolly took some. Come on, take yours now." It rarely fails.

One of the social qualities much desired by youth and adults and admired by all, even children, is that of leadership. It is possessed by different individuals in very different degrees. Even in childhood some possess natural qualities which make them as leaders even in mischief. The great majority of human beings are really followers, which is a social trait and implies leaders and recognition of leadership. Doubtless most men might be leaders in something were the germs of leadership developed at the proper period.

Contribution to the Theory of Intitiative From the Field of Modern Business. Modern business has its contribution to

make to the subject of initiative and its cultivation, but before applying its precepts to the lives of our children we must make some attempt to evaluate its advice from the point of view of social worth. In the opinion of this student it should be checked, at all stages, by "cooperation" and this is one reason for this investigator's having chosen these two qualities for analysis.

Will the activity suggested for the development of initiative by modern business be good for society as a whole? Is the test to be applied in each instance?

Cooperation or the working together of the individual with society is a necessary corollary to every precept of modern business which urges us to "go ahead," "develop ourselves," and so on

With this warning in mind, the investigator will present what certain specialists in the field of modern business have to offer on the subject of initiative and leadership.

> "Grow in initiative," says H. Addington Bruce, in Self Development. (11:332) "Initiative is the ability to reason out a course of action and to take such a course decisively and energetically. It is one of the basic elements in business success. Without it the business man need never hope to travel far. However great his mental power, unless he possesses the quality of independent and energetic action he will always be among the laggards in the business world."
>
> "A certain man went to work for John D. Rockefeller in the early days," relates Bruce Barton in More Power to You. (6:39) "After he had been there a couple of weeks, Rockefeller dropped into his office one afternoon and said, 'Just as soon as you get this job organized I want you to look around for some one to turn it over to. Then you put your feet on the desk and dream out some way of making more money for the Standard Oil Company.' It was rather a startling order for a new man to receive from his boss. Apparently it violated all the time worn precepts of business progress.

Here was an employer willing to pay only small salaries to the kind of men who keep their heads forever bent over the desk, reserving big salaries for the kind of men who sit with feet piled on the desk. A curious contradiction of all the First Reader stories.

Yet there must be something in it; for on the foundation of that philosophy Rockefeller built the biggest fortune in the world."

In Energizing Personality, Ancil T. Brown says; (10:53)

"The person who becomes most valuable to his employer is the one who can originate new ideas or introduce a new measure or course of action. If you do not apply this quality to your work or business, do not expect promotion or success. An employee without initiative is no help to an organization. The world is full of imitators - 'yes, yes' employees. There is no advancement without initiative. You must display energy and fitness in opening new fields of activity to produce effectual results. Initiative should be practiced in every position, from office boy to president. You will never fulfill requirements of any position unless you understand the meaning of this word. Persons often wonder why others are promoted and they are not. The reason is sometimes found in lack of effort, capacity and initiative. All forms of leadership require it."

And in Personal Efficiency, Applied Salesmanship, and Sales Administration, Irving R. Allen says of initiative (2:85-87).

"I'll take your ability for granted. If you want maximum returns from the exercise of that ability, you'll have to add initiative."

Fortune grants her highest favors to the fellow who doesn't have to be told - who finds out for himself what needs to be done and then does it.

Here are the steps if you can so term them - of initiative:

a. Looking for opportunity.

b. Finding out how to take advantage of it.

c. Actually doing it.

Consider Charlie Chapman, our new office boy. He noticed that our distilled water bills ran high.

a. Looking for opportunity - how to cut down water bills.

The water tank stood in the outer office. Charlie noticed that errand boys, solicitors, outsiders were consuming more of the water than the office force itself.

b. Finding how to do it. Charlie decided that if the tank were less accessible to outsiders the water consumption would be smaller.

c. Actually taking advantage of the opportunity he created for himself. He moved the tank inside the railing - out of reach. Outsiders now get their drinking water elsewhere. Our bills are cut in half.

That's initiative. Small thing, yes, but Charlie's initiative is proved by the fact that, without being told, he has our desks clean in the morning; without being told, in his spare time, he has gained a working knowledge of typewriting and is just about three times as valuable as the last boy we had. There's something in store for him.

In Personal Power in Business, Charles W. Gerstenberg, (24:15-17) analyses the situation thus:

There is an admonition familiar to us all - "Be sure you are right, then go ahead." Judgment may give information as to the wisdom of a course, but something is required to induce us to go ahead - to overcome the inertia of our previous course or condition.

The urge to go ahead - when it comes from within, is called initiative. When it comes from without, it may be called suggestion, persuasion, or compulsion. The urge from within - the initiative - is the attribute of leadership.

Remove the men of initiative from a thousand of the principle concerns of the country. What would be the result?

We may assume that for a time business would go on as usual. Each business has its plan made for the future, each department runs in a groove, each man understands his everyday duties. Why should not the business machine, even if initiative were removed, keep on running indefinitely?

Business could not keep on running indefinitely if initiative were removed, because the conditions under which it is operating are continually changing. Initiative is required to adjust the business to changed conditions.

When the supply of raw material gives out some one must take the initiative in securing a new supply. When the market fails, someone must discover a new market. As the population increase, production must be increased. Old methods will no longer provide even the prime necessities of food, clothing and shelter - to say nothing of the luxuries that are demanded.

someone must take the initiative in the introduction of new methods and processes.

The leader in business always has initiative. It is he who sees the worth and adopts the new invention, the new system of management, the new business policy, or the new view point in business and industrial relations. Others may agree that the thing is right, but the man of initiative is the man who goes ahead.

Initiative and Spontaneity. What of our children - are they spontaneous? Do they display initiative? Are their creative instincts developed into the right channels or are they regimented into a state of dull apathy in the schools, to emerge into the streets, displaying, it is true, plenty of initiative and spontaneity in their play, in the formation of gangs, in emulation of cheap movie idols, and so on. But is this the direction we, as their guardian spirits, would have them take?

In The Development of Spontaneity, Initiative, and Responsibility in School Children, Henry Lincoln Clapp (15:209-221) says:

> "A lack of spontaneity, initiative, and responsibility, is found by many teachers in the large majority of pupils."

Something hinders this development. Children show these traits out of school and before they enter school.

> "Children outside of school cannot be accused of lacking initiative in regard to things which interest them, which they understand, and have power to do, and their incessant desire to do something, not necessarily mischievious or useless, cannot be denied. With sufficient freedom they evince natural traits well enough."

"School studies properly treated can be the means of developing spontaneity, initiative, and responsibility just as well as games, making things, or an interesting environment."

The hospital ward, by this investigator, is conceived of as a place where some of this mis-education of the schools may be corrected.

Is it possible in a hospital, one may ask, to develop the personality? Can the hospital be conceived of as a place where may be developed qualities of character which the outside normal world has been unsuccessful in developing?

In the "Magic Mountain" of Thomas Mann we have an account of life in a sanitarium for the tubercular, and it must be confessed that it is a life more thrilling (in spite of its necessary starkness) than the life of many a normal environment outside. The patients lived, in so far as was possible, normal lives heightened by interests that ran the gamut from duel fighting to philosophy.

"In illness" says Aileen Higgins in The Psychology of Nursing, (32:231) "disease often saps the vitality to such an extent that only intense stimuli will rouse even spontaneous attention."

"Even in convalescene," she says, (32:232) "the nurse must never forget that the patient's ability to give any degree of active attention comes back gradually and at best cannot be equal to that of the individual in health."

This student has taken the position in this thesis, however, that the convalescent child's attention, interest, and initiative can be made to equal that of the child's in health if a superior kind of stimulus on the part of nurse, doctor and teacher is applied.

In the case of the hero of the Magic Mountain, we have, to start, just a quite ordinary clerk of the bourgeoisie with all of the limitations of that milieu. After the young man's contraction of tuberculosis and his stay in the hospital, there emerges, certainly, something of a philosopher.

The same result may be achieved with a child; and even though his convalescence may extend over a period of say only three of four weeks, experience may be put in his way which may change the course of his life; or at least his hospital period may be a time to look back upon, ever afterward, as a period of growth.

As Miss Tracy says, (17) you cannot stop education. The little minds go right on working, working overtime in certain types of illness. The question is whether we would permit the child's mind to dwell upon the horrors of illness, upon the condition of other patients, or whether we shall take this particular time to train his imagination, give free rein to his creative impulses (which his school life may have partially killed), and teach him wonderful things which shall ever afterward inspire him and lead him on to a future conquest of the mental and spiritual goods of this world.

Shall we let his mind dwell upon morbid fancies, or shall we bring into his ward a lovely picture of Giotto of St.Francis of Assisi feeding th birds, and tell him the story, then, of this thrilling saint, finishing our narrative with the prayer which praises the sun and water and all of God's good things on this beautiful earth?

A friend of mine, as a little girl, when too ill to sit up, was permitted to look at a catalog of prints of the old masters. It was only a sales catalog, but the prints were in color and happened to be very good.

She says her love of pictures, before that time non-existent, had birth in that never to be forgotten experience.

Think of what might be done in the hospital ward with water colors! Not with the "paint like teacher" method, but by giving free rein to the imagination of the children. The results can hardly be calculated.

That illness may be made attractive is tacitly acknowledged by Blanton in this (to this student) stupid exhortation: (8: 137)

> "Illness, on the other hand, should most distinctly not be made a holiday. There is entirely too much making of illness a very desirable break in the routine of children. It is infinitely better if the child is persuaded that although he is ill enough to be in bed he must amuse himself, or rest or relax, and that his routine must continue. He does not get well any more quickly by having his discipline broken down. A sick person needs rest not humoring and amusement to keep him quiet. If he is well enough to need amusement to keep him quiet, it should be of such a nature that he will not remember it always as the most desirable period of his life. If the illnesses of children are made pleasant, desirable, and joyous occasions, it may give rise in later life to a markedly

anxious state of mind in which slight physical conditions are accentuated into what appears to be a real illness."

The only application one might make of Blanton's warning would be to those parents who coddle the child who is only slightly ill, and release him from all discipline.

The child who is really ill, and who is recovering from a real illness, is another matter. He will need all the help toward health that his overseers can give him. Prison, mental or physical, never did anyone any good, and to place the child in a prison condition when he is ill, is nothing short of a crime.

There is always someone, who, perhaps not having any too great capacity for joy himself, is always wanting to take the joy out of life for others. This is not true of the great souls of this earth, whose capacity for joy was a fair measure of their greatness.

A proper stimulation of the high mental centers will never cause the child to be ill just for a repetition of the pleasurable experience! Illness is unpleasant enough, goodness knows!

Let us not be afraid of joy! Let us rather so direct our children that their pleasures may be had from the wholesome things of life.

"Experience," says Herbert Spencer, "is daily showing with greater clearness that there is always a method to be found productive of interest, even delight; and it ever turns out that this is the method proved by all other tests to be the right one."

Cooperation. When is a child cooperative, when not?

Many of us, when thinking of "cooperation" are accustomed to dwell too much upon our own end of the "co-op," so to speak.

A child, we say (or an adult for that matter) is highly cooperative when he does just what we want him to do.

We have forgotten that "cooperation" is the act of working together for a certain end; of combining for a certain "purpose." There are two parts to it, you see, and each theoretically speaking, must go half-way.

In making a test of the amount of cooperation to be found in the child, this principle must be kept in mind. Cooperation is not a one-man proposition. When it occurs in life, say between the child and the group, the child gives his part, the group theirs; both the child and the group receive.

Cooperation is not charity, if charity is thought of as giving only. In selecting factors for a test for cooperation, therefore, two factors, each of which will make concession to the other, must be chosen. How the investigator may err in this respect is illustrated by one of the "Character Education Inquiries" as reported in Hartshorne and May's Studies in the Nature of Character. (29a).

A sheaf of papers containing sums to be added are thrust upon the child - (figures enough to scare a public accountant). He is told that credit for sheet one is to go the class, for sheet two to himself, and so on. Persistence is measured by the length of time in which he sticks to this useless task. His cooperation is measured by the ratio of work done for the class to the work done for himself.

Now, suppose that he didn't care for figures, in the first place - would this test truly measure either persistence or cooperation? And then, suppose that he happened to be a little Jewish boy in a Gentile class, and so had been ostracized, would the amount of work which he would be willing to do for the class measure his cooperation in general? It is the contention of this investigator that it would not. This particular class, we'll say, had given him only unpleasant feelings of inferiority, segregation, etc. Might he not be highly cooperative toward a different class?

I mean to point out that in order to test cooperation two factors each of which are willing to go half-way must be chosen.

Indeed, one of the many things which a child must learn is when and not, and with whom and with whom not, to cooperate; and all this is tied up with authority, good and bad.

"Each individual," sayd Rand (43:67) in The Growth and Development of the Young Child, must learn what constitutes a desirable adjustment to authority, and the sooner a child begins his lessons in this type of learning, the better his adjustment will be.

1. He must learn what constitutes a good and desirable authority; what kind of law it is wise to obey; what kind of superior wisdom and experience it is desirable to consult.

2. He must learn what constitutes a bad authority; what kind of opinion it is wise to disregard; what kind of advice is worthless and vicious.

3. He must learn self-discipline enough to comply with good authority.

4. He must develop strength of will enough to resist bad authority.

Again, it is not correct for us to call a child "uncooperative" merely because he does not accede to our wishes. An account of the whole situation must first be taken.

> "Behavior," writes H. W. Potter (60) "is regarded as social or anti-social according to the prevailing requirements or customs of society. Behavior may be abnormal because of faulty environment or defective or damaged biologic equipment. Environment may be found to be at fault either in the home, the school or the community."
>
> "Physical make-up of the individual may be handicapped by deformities, deficiencies, disease processes, diseased states or disorders of metabolism. Mental make-up of the individual may be handicapped by subnormalities of intelligence and faulty habits of reaction."
>
> "Abnormalities of behavior in children are to be regarded as symptoms rather than entities by themselves. Careful study of the life history of the child, of his hereditary background, physical environment, the personalities of parents, teachers and others with whom he is in daily contact, together with a careful physical examination, study of the emotional patterns, and an evaluation of intelligence will usually disclose the roots of the difficulty."
>
> "Treatment is based entirely upon what is disclosed by the survey of the whole situation."
>
> "It is important that we substitute the old notion of domination for the plan of gaining his cooperation," Faegre says (21:152) "The child whose nose is held while cod liver oil is forced down is an example of the child whose parent intends to dominate. Cooperation is taking place between parent and child when the child runs eagerly to get the cod liver oil because it is his, because he is always allowed to unwrap a new bottle, and has never seen an older person make an ugly grimace when the subject was mentioned."

In Professor Hershel Manuel's Master of my Fate we have a rather practical statement of cooperation with suggestions as to how to develop it. His suggestions, which were intended for adults, have been slightly modified by the student so that they apply to children.

"The fact that (38:114) men live and work in cooperation heightens the value of some traits and furnishes the necessity for others" he says, "Promptness is an illustration of the first. It helps individual accomplishment to do work at definitely appointed times, and it becomes of more importance when one's performance must be timed with that of someone else. Loyalty illustrates a virtue that has its principal significance in social situations."

"Effective team work requires a mutual adjustment of individuals to each other. This should be based upon a willingness to do cheerfully one's part, and more if it becomes necessary, and to respect the rights of the other fellow. For the highest accomplishment and the most satisfactory relations, honesty sincerity and truthfulness are required. The lack of these strikes at the very root of cooperation."

"This, then, (38:137) is the dilemna of all human association: cooperation is absolutely necessary for the satisfaction of human longings, but at times the pursuit of their own desires brings individual and groups into sharp conflict with each other. It is idle too long for personal liberty, if we mean by it the right of the individual to do as he pleases regardless of others. For the satisfactions which are possible through cooperation the individual must pay the price of surrendering other satisfactions which he might have if conduct were unrestricted."

"Without a certain mutual confidence effective group activity would be impossible. To break this down is to inflict incalculable loss. These virtues not only promote social welfare but bring more or less immediate benefits to the individual. For instance, the refusal to take advantage of accidental errors marks a person as a true sportsman and excites sincere admiration."

Professor Manuel adds a list of "Actions in relation to others - for self-analysis and self-improvement."

1. Speaks and acts with becoming modesty, avoids bragging and strutting.

2. Cooperates actively in tasks requiring cooperation.

3. Cheerfully does his part and more if necessary.

4. Acts according to the Golden Rule.

5. Keeps agreements.

6. Meets financial obligations promptly.

7. Learn enough about associates to have an intelligent and sympathetic interest in them.

8. Exhibits interest in associates.

9. Rejoices in success of others.

10. Respects privacy in others.

11. Strives by fair means; avoids pulling down others or putting obstacles in their way when they are engaged in worthy tasks.

12. Considers rights of others, especially those who are unable to look out for themselves.

13. Shows consideration for feelings of others; speaks and acts with courtesy.

14. Seeks to understand the other fellows point of view.

15. Shows to others the tolerance he desires for himself.

16. Fights for principle when necessary, but avoids personal enmities.

17. Works toward orderly cooperation of all nations and races.

18. Prepares to exercise individual leadership according to individual ability and group needs.

19. Takes leadership as opportunity presents and as it appears a worthy service may be rendered.

20. Overcomes timidity by active participation in social enterprises.

21. Participates in reasonable number of voluntary organizations.

22. Continues to cooperate even when his view does not prevail; avoids sulking and pouting.

23. Acts honestly even in situations where detection of dishonesty seems unlikely.

24. Deals justly upon basis of facts; avoids prejudiced and selfish decisions.

25. Plays according to the rules of the game.

26. Refuses to take advantage of the weakness or ignorance of others.

27. Expresses approval of acts that deserve commendation.

28. Avoids extravagant praise or flattery.

CHAPTER VI

THE MENTAL TEST; THE PSYCHOMETRIC TEST; THE CANVAN-BURGESS TEST; OTHER TESTS; RESULTS.

The Mental Test. It will be obvious to all that before any attempt could be made in the direction of the development of initiative and cooperation in the convalescent hospitalized child that his general intelligence must be measured.

It is important that nurses in charge of children know at least the rudiments of the intelligence tests and what results to expect. In the hospital we find children of all mental capacities, from the feeble-minded to the superior. When a nurse knows about what the mental ability of her patient is she can deal with him much more intelligently and expertly.

Much interest has been developed in connection with these methods of measuring mental ability during the past two decades. The first real attempt at measuring mental ability was made by Binet in 1904 for the purpose of separating the feeble-minded from normal persons. In that year an educational requirement in Paris demanded the discovery of the mentally defective in the schools. Binet tested several thousand children of each age and then standardized the tests of ability for each age. These tests were published in 1905 in "L'Annee Psychologique." These were revised in 1908 and 1911. From that time they have been widely

used. Binet's tests did not fully accomplish the result sought. A great many investigators have studied the tests, modified them, and improved them, but even yet they are far from perfect.

Terman has made some valuable contributions to the mental ability testing. He has endeavored to give tests that really test intelligence and not merely information. He has determined norms of what children of a given age can do. Other tests are the Yerkes' Point Scale, the National Intelligence Tests, the Standardized College Entrance Examinations, and the Army Tests. The Army Tests have been well standardized. They were given to over 2,000,000 men during the World War, and have been repeated thousands of times since in courses of mental measurement, in college entrance examinations, and in vocational guidance to a certain extent.

These tests are used for various reasons in schools, elementary as well as in advanced schools, also in some hospitals. They may be used for the following purposes:

1. Classifying children in accordance with their native intelligence.

2. In applying group intelligence tests the instructor may discover some of the physical and mental pecularities of children.

3. The group intelligence tests may give indication of the probable causes of difficulty with unusual or troublesome children, misfits, if we may so call those who do not fit into the school routine.

4. Vocational guidance along broad lines may be given with greater assurance when the results of an intelligence examination are known.

As to the types of mental tests, they may be oral or written, the subject marking or writing upon blanks; they may be in the form of puzzles, or they may be simple mechanical contrivances for the subject to manipulate.

The aim is (13:60) to measure some capacity or proficiency in order to predict what the individual will do at some future time and under certain circumstances, for instance when learning a particular job. It is not possible to measure the entire capacity in question. Measurement of ability to concentrate for a few minutes on a test blank is assumed to be a reliable sample of the individual's ability to concentrate for a prolonged period at his daily task. Another feature that characterizes most of the better tests is the quantitative nature of the results. The person's score is not expressed as good, average, etc., but as a certain number of points.

Mental tests may be classified according to whether they measure capacity or proficiency. The former deal with essentially innate factors and the latter with acquisitions. They may be further subdivided into tests of special capacity such as attention or memory and general capacity or intelligence...There are tests for motor control, sensory capacity, learning, association, reaction time, space perception, reasoning, memory, decision, ingenuity, and ability to follow directions. There are

other less tangible factors such as emotion, or temperament, for which measures are needed in the practical situation. It is not always a question of what the individual can do, but of what he will do. The efforts at developing such tests are still in the early stages.

Notions as to the nature of intelligence vary, but there is apparently some capacity measured by our so-called intelligence tests that gives a person a poorer or better chance for survival in the economic struggle and that makes it possible in certain situations to predict occupational efficiency. This general capacity may be of the abstract type or even of the social type. The scores attained in intelligence tests are usually handled by converting them into percentile scores for the group under investigation or into terms of intelligence quotients.

In an estimation of the intelligence tests, John E. Anderson (54:1015) says, "While the overpopularization of tests has been somewhat harmful, in the main their widespread use has contributed to the welfare of all children. New principles of education have been developed around individual differences. Society has moved from a lock-step system in which all children were treated much alike to a system in which endeavor is made to accommodate the kinds and type of instruction to the capability of the individual child."

The Psychometric Test. What are the ways in which we may study personality? What are the techniques which we may employ

in order to discover whether a convalescent child in the hospital has an amount of initiative equal to that of the child in health? Suppose that we were to develop a technique for building up, say, initiative, in the hospitalized child; what are the techniques already developed which would enable us to measure quantitatively the amount of initiative before and after the correctives were applied.

The following techniques for the study of character are indicated by Professor Mark A. May in Building Character (3:8)

1. Physiology and allied sciences have contributed certain laboratory techniques for the investigation of the dynamic factors of character, such as emotions, instincts, and drives. These techniques consist mainly in devices for measuring such physiological variables as blood pressure, respiration, glandular activity, metabolism and electric phenomena, especially electric changes in sweat glands.

2. Sociology and psychiatry have contributed the case study, a method of securing a complete picture of the individual. It is concrete and synthetic but lacks quantitative precision.

3. The testing or statistical method contributed by psychology. The investigator applies certain character tests which are designed to measure the status of character at any time. The results of the measurement are treated statistically with a view to determine the interrelationship of factors, growth norms, and standards. The chief values of this method

for character education are:

a. That it enables one to measure the results of various teaching methods and educational procedures.

b. The test also reveals causes, but in a manner different from the case method.

> "The character testing movement is yet in its infancy," Professor May acknowledges, "and most of the tests are still in the experimental stages. We have not as yet any test or battery of tests which will measure character in the way that the Binet test measures general intelligence."

In this connection it might be interesting to quote the estimate of P. F. Valentine of all tests of this character (49:319);

> "In respect to the measurement of general qualities of character and temperament," he says, "much experimenting has been done to devise means for measuring such qualities as trustworthiness, honesty, citizenship, and the like. As desirable as such tests would be, if valid ones were invented, it must be admitted that the present situation holds out no great promise of success. Nevertheless, some investigators display considerable enthusiasm along these lines. In all these tests, some performance must be elicited from the subject. He must be induced to answer problems or questions, to perform some artificially conditioned act or to respond to some trick situation. In any case it is doubtful if the performance can be taken as a true measure of a general moral quality as it would act under life conditions."

Perhaps it is not wise to criticize too severely certain of these tests, since this investigator believes that it is in the test that future development in this field may be expected.

Yet, if those who now believe in the test as the one method, were to place too great importance on their results, what irreparable injury might not be done our children who had

been so "measured." For instance, one test of the Character Education Inquiry for persistence consists of the child being told an interesting story which is interrupted at a vital point and then a sheet given him on which the remainder of the story is given but in such a form that no intelligent human being (in the opinion of this investigator) would care to attempt to decipher it. The words are all strung together and the whole thing so jumbled that only a type of persistence which would cause a person to undertake the job of moving a mountain of wheat, grain by grain, would be measured.

The result which would be obtained is not worth the effort, and an intelligent child would see this at once, in this student's opinion.

The test in which columns of figures are added, mentioned under the section on cooperation is also in point here. It is the opinion of this student that many a child who might score high in a better developed test for persistence or cooperation, might get zero in either or both of these tests.

Of the hundred tests which have been developed, Professor May says of certain ones:

> "These tests appear reliable enough, but it is difficult to define what it is they measure," and again, "Just what emotional factors are tested is not clear, but they have value even if the results are difficult to interpret."

No tests have yet been devised to measure initiative and of those for cooperation, or more properly speaking for service (since the Character Education Inquiry does not differentiate be-

tween the two), none was found, by this investigator to be suitable for the project of this thesis.

It might be well to describe some of these latter here. (30:60).

1. The self-or-class test in which rewards of money are given after a spelling contest; some for class and others for self.

2. The money-voting test in which each child must choose whether money is to go to the class, or be divided among its members.

3. The learning exercises in which on successive days a group of symbols are given to children to learn, that of the second day being "to help the Red Cross," that of the last day giving each child a chance to earn a quarter for himself and so on.

4. The school kit test in which a kit of pencils etc. are given to each member of the class, and then each member is asked if he would like to give away part of his kit to some other school child who hasn't them.

5. The envelopes test in which the helpfulness of children is tested by asking them to put puzzles, pictures, etc. in the envelopes for hospitalized children.

As to results obtained by Hartshorne and May in these tests, it was found that more than half of all children tested would share with others, and in service involving hard work about a third would do more for their class than for themselves.

May also mentioned an interesting test for cooperation reported by Carlton Washburne in "The New Era" for 1928 (66:8-12) in an article called "The Good and Bad in Russian Education."

In a school in Russia, each child has his own garden plot but also has a joint interest in a garden tended by all the children. Records are kept of the relative amount of interest in the two types of work. No results are given of this ingenious scheme.

It will be obvious, I think from my presentation of these tests, why this investigator chose, in order to measure initiative and cooperation in the convalescent hospitalized children, a test of a more inclusive and general nature. It is conceivable that a test for either or both of these qualities may be developed in future, but since none exists today, a general character inquiry was adjudged to be a more useful measure of these particular character traits in hospitalized children. A child well adjusted to his environment, and one having a well balanced personality will exhibit a normal healthy amount of initiative and cooperation; and so any test which would attempt to measure his whole life reaction would indicate, to an extent, whether he were deficient or not in these particular qualities. It was also possible, in giving this more general test, to measure the child's initiative and his cooperation as a by-product of it.

The Cavan-Burgess Test: Personality Adjustment of Hospitalized Children with Relation to Initiative and Cooperation.

There is a genuine need for more specific knowledge with regard

to personality adjustment in different types of groups, a need which can only be met by increased experimentation in tests measuring personality adjustment, and increased emphasis upon research in specific groups. This heightening of emphasis upon personality problems is but one phase of a growing extensive scientific interest in this field.

It is platitudinous to state that an individual's personality changes with varying situations -- that he assumes a different role in different surroundings and among different people. The purpose of this section, then, is to state tentatively certain conclusions drawn from statistical data gained by applying the Cavan-Burgess Personality Test to 208 hospitalized children. The following twenty-four questions are included in the test:

Would you rather be with those of your own age than to be with older people?

Have you always gotten a square deal out of life?

Do you ever stutter or stammer?

Have you always liked the nicknames you have been given?

Do you sometimes wish that you had never been born?

Do you ever feel that no one understands you?

Do you usually go to sleep without crying or feeling sad or hurt?

Did you ever have a teacher you couldn't get along with?

Do those you play with say you quarrel or fight too much?

Would you rather go to school now than go out to work?

Do you ever take other people's things without their permission?

Do people find fault with you much?

Do people say you are disobedient?

Do teachers tell you that you are too noisy or talk too much?

Did you ever want to run away from home?

Can you easily imagine stories to yourself so strongly that you forget where you are?

Have you often been punished unjustly?

Do you often feel that nobody loves you?

Do you feel just miserable a good deal of the time?

Do you ever feel that someone is trying to do you harm?

Is it easy for you to make up your mind about things?

Are you ever bothered by a feeling that things are not real?

Is it easy to get you cross over very small things?

Do you usually know just what you want to do next?

Whom do you like best in all the world?

These twenty-four questions are given with an aim of measuring emtional adjustment and general attitudes toward social relationships. The test was constructed after studying carefully three investigations in which similar tests had been used (see works by V. Cady, Ellen Mathews, and John Slawson). The basis for judging the significance of these questions was the difference shown in the results as applied to a group of delinquent boys and one of normal children. Each question answered undesirably counted as one and the score was the number of ques-

tions answered undesirably. Therefore, the lower the score, the higher the integration and better the adjustment which may be attributed to any given personality.

But one would be justified in asking the question as to just what this test measures. Fundamentally, these questions concern social adjustment to other children and to adults, in addition to various types of emotional reaction. A cursory survey of data presented here will show that superficially, at least, there is a correlation between these reactions and the attitudes of the child, that is, that various of the reactions and attitudes "hang together." The child who has difficulty in adjusting himself to a play group also has difficulty in the school room. A companion trait of this tendency to conflict with conventional modes of behavior and reaction is that of suspicion and evasion. This is indicated in questions 16, 17 and 18, which reveal tendencies toward fantasy and day dreaming; attitudes on "getting a square deal out of life" and injustice of treatment.

But the further question may be raised as to whether these unwholesome attitudes are the result of poor social adjustment or temperamental differences in the children. Some children are temperamentally a "withdrawal" type and consequently have difficulties in adjustment to other people. Dr. Cavan has remarked that, whatever the causal and effect relationships may be "the poor social adjustment and unwholesome generalized attitudes go hand in hand, and....the test, brief as it is, differentiates

children into distinct types on the basis of combination of poor social adjustment and unwholesome general attitudes."

Mention will here be made of several items which should be kept in mind in interpreting any of the following statistical data. First, these data are not separated by sex or nationality for the hospitalized children. Second, the number in the hospitalized group totaled 208, in contrast to 1,000 and more cases in the normal urban group with which they are being compared. Third, the age distribution is considerably different, ranging from ten to fourteen for the hospitalized group, and from ten to sixteen for the group used in comparisons. Finally, the subjective character of the test is a factor which must be remembered. Although tentative conclusions may be drawn, the errors of chance in addition to the selective sampling must be considered, and no statements made in drawing these comparisons may be taken as conclusive.

A brief comparison of the general results of this test as given to the hospitalized groups and as given to other groups may indicate the relative validity of the results. Of 941 urban white boys with American-born fathers, 41 per cent made a low score, indicating good attitudes, or good adjustments, 49 per cent had fair adjustment and 9 per cent had poor adjustment. Among a group of 247 delinquent boys from an Illinois institution, the situation is almost reversed: only 9 per cent of the boys had good adjustment, 46 per cent fair, and 44 per cent were poorly adjusted. Non-delinquent and delinquent girls show

a similar difference on scores.

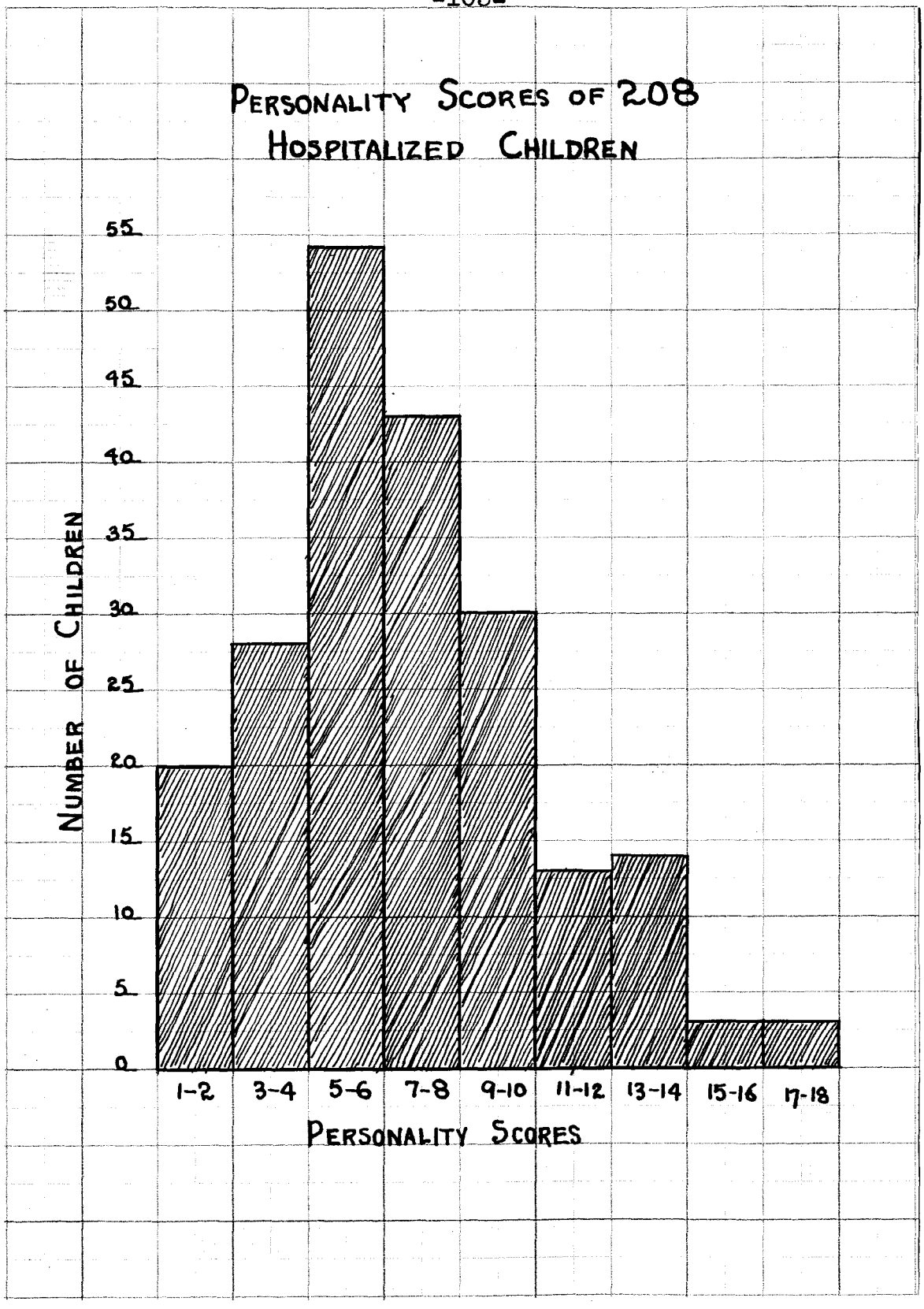
Although there was no differentiation made in tabulating scores for girls and boys in the hospitalized group, the general trend of the scores indicates that the children are quite normal and well adjusted with regard to personality synthesis. The figures on the 208 cases studied as given in Table I show that 38 per cent were well adjusted, 47 per cent had only a fair adjustment, and 15 per cent were poorly adjusted. The median score of the normal group was 6.6 and that of the hospitalized group 6.9. (See graph, page 103).

TABLE I

SCORES ON PERSONALITY ADJUSTMENT OF 208 HOSPITALIZED CHILDREN

1 - 2	20
3 - 4	28
5 - 6	54
7 - 8	43
9 - 10	30
11 - 12	13
13 - 14	14
15 - 16	3
17 - 18	3
Total	208

An interesting complement to these tests would be the judgments of the hospital teachers and nurses in regard to the child's personality on the basis of the White House Conference rating scale, which includes emotional stability, social aggressiveness, character, mental ability and physical development. In such comparisons of the results of the personality tests given to school children, and the judgment of the children by


PERSONALITY SCORES OF 208
HOSPITALIZED CHILDREN
NUMBER OF CHILDREN
55
50
45
40
35
30
25
20
15
10
5
0
1-2
3-4
5-6
7-8
9-10
11-12
13-14
15-16
17-18
PERSONALITY SCORES

the teachers, a low but definite correlation was found, for the children whose scores indicate good personality adjustment and emotional stability also tend to be harmonious in their school behaviour. The fact that these correlations were low indicates that the same qualities are not tested in the Cavan-Burgess test as are rated by the teachers. Nevertheless, the tendency toward normal personality adjustment of the child and compliance in school is definitely evidenced. Dr. Cavan has to say, in conclusion:

> "While the test is too brief for individual diagnosis of children, it becomes a valuable instrument for this study in that it differentiates children into groups which may then be studied with reference to factors in their home backgrounds which may be related to the social maladjustment and unwholesome attitudes of the children."

Table II gives figures on 1,957 normal children, to whom the personality test was given. Although accuracy of comparisons would require that these figures be reduced to percentages, the following table presents a brief picture of the tendencies evidenced in results of the test.

TABLE II

SCORES MADE BY 1,957 CHILDREN IN PERSONALITY ADJUSTMENT TEST.

Scores	0-5	6-9	10-13	14-17	18-24	
Girls	485	329	154	43	5	1016
Boys	387	375	141	36	2	941
Total	872	704	295	79	7	1957

The close correlation between the scores of the hospitalized children and the group of normal urban children is a point

that may well be noted with reference to the hypothesis which has been proceeded upon in this dissertation. That is, that with proper and intelligent planning, the hospitalized child need show no more instability or failure in response than the normal child, as far as initiative and cooperation are concerned. The fact that this group evidences a close adherence to the normal curve of scores constructed on a basis of thousand of tests (in which median point is 6.6) may be a refutation of the common belief that a long illness inevitably results in personality disorganization more or less permanent on the part of the child. With the knowledge that a permanent impairment of faculties is threatened, a disintegration of personality may well be expected, but in such a group as that to which these tests were applied, the behavior patterns found in normal, unhospitalized children may be expected, providing there is not a disorganizing influence in the form of uncooperative parents, unintelligent mental conditioning of the child, on the part of the doctors or nurses, or some other like factor. If this assumption be accepted at face value, then the conclusion may be reached that the same initiative and cooperation found in the normal child can in a like manner be awakened with the hospitalized child.

A serious illness may cause noticeable changes in the personality, which most frequently take the form of unpleasant egocentric traits resulting from the unusual degree of attention paid the sick child, and when this same degree of attention is not continued upon partial or complete recovery, conflict re-

sults, many times delaying the complete recovery of the child.

But with an intelligent understanding of conditions, this undesirable situation may be avoided. Ruth Pearson Koskuk in "Plan for a Parent-Teacher-Guidance Clinic and Research Center in connection with a Children's Hospital" reprinted from Hospital Social Service, XXIV, 1931, 411 has to say, in this regard:

> "Unless the parents are given insight into the situation, they may unwittingly act in such a way as to delay the return of the child to normal life and activity. Consultation at the guidance clinic could be of vital assistance at this point. Such a service might be known as "personality after-care," or the 'mental hygiene of convalescence.' Data gathered on all admissions over a period of years would constitute a valuable increment to human knowledge.
>
> The cooperation of staff members, with the addition of one or two others, in particular a sociologist specializing in the study of early life, would provide the needed personnel for such an extension of hospital service. Intelligent recommendations in each individual case would depend upon an understanding of the child's life history, secured largely through parent interviews and a clear cross-section of his life before entering the hospital, including group relationships, major interests, home daily time schedule, etc., supplemented by the patient's own story, gathered in the course of informal interviews during convalescence. Such a study should be followed, at least in special problem cases, by systematic observation of the child in all his social groups, after discharge, with problem-progress and social interaction records."

With a basis for understanding the personality of the child, in as complete a form as the above outline, no outstanding differences should be found in the reaction of the hospitalized child in initiative and cooperation, from those of the normal child.

Table III indicates the answers to the question "Whom do you like best in all the world?" There is a marked variation in

the percentages shown by the hospitalized group and a normal urban group, the most noticeable one being that in the case of number of children preferring both parents. A note of explanation may be made concerning the classification, however. In cases where the answer included mother and someone else, the score was listed under "mother," the proceeding being based upon the fact that the father was omitted. Other items were treated in the same manner. Answers included in "outside the family" were: aunt, uncle, grandmother, grandfather, teacher, girl-friend, God, and one who said "Nobody need know who I like best."

To make any valid statements in interpreting these variations, it would be necessary to know the sex differences, nationality differences, and many other factors. It might be tentatively concluded, however, that the high percentage of those liking the mother "best in all the world" may be due to an association of sickness on the part of the child with the tender and solicitous care on the part of the mother. Due to the role played by the mother in caring for the child during his illness, she may be uppermost in the child's mind, and his dependence upon her is emphasized.

TABLE III

PERCENTAGES OF CHILDREN EXPRESSING LIKING FOR PARTICULAR PERSON

	Hospitalized	Normal Children
Both Parents	19%	53%
Mother	49%	37%
Father	8%	5%
Brother or sister	3%	2%
Someone outside the Family	19%	2%
No reply	2%	1%

The only significant difference with regard to personality scores with reference to this question is in the case of those who said they liked the father best, twice as many of these children having scores above the median, as below.

However, since there are no figures on sex differences, no definite interpretation may be made.

A final note may be added in a discussion of several of the most significant questions. Table IV gives these questions and percentages in detail. A comparison of these figures will show the rather close correspondence on the questions. The points previously mentioned concerning the discrepancy, in number of cases in each group, and the error due to chance may well be reiterated at this juncture, in order that too great significance be not attached to differences noted here.

The greatest difference to be found is that concerning the question "Have you always gotten a square deal out of life?"

It is seen that nine per cent more of the normal children have given neurotic answers to this question than of the hospitalized children. Eight per cent more of the normal children wish they "had never been born," while six per cent more of this group feel that someone is trying to do them harm, than in the hospitalized group. Six per cent more of the hospitalized children find it easy to imagine stories to themselves so strongly that they forget where they are, than in the normal group. Although the difference is not great, this may be evidence of a greater tendency on the part of the hospitalized children to day-

TABLE IV

NUMBER OF NEUROTIC ANSWERS GIVEN TO QUESTIONS ON PERSONALITY ADJUSTMENT BY HOSPITALIZED NORMAL CHILDREN

	Hospitalized Children		Normal Children	
	No.	%	No.	%
1. Have you always gotten a square deal out of life?	38	18	266	27
2. Do you sometimes wish you had never been born?	41	20	281	28
3. Did you ever want to run away from home?	41	20	189	19
4. Can you easily imagine stories to yourself so strong that you forget where you are?	133	64	580	58
5. Do you feel just miserable a good of the time?	22	11	150	15
6. Do you ever feel that someone is trying to do you harm?	61	29	347	35
7. Are you ever bothered by a feeling that things are not real?	48	23	302	30
8. Is it easy to get you cross over very small things?	92	44	359	36
	208		1000	

dream and dream fantasies, which might be expected of them after a period of enforced inactivity characterized by much unpleasant routine.

The older children, as could be expected, took the tests more seriously. Lack of comprehension of some of the questions was shown by a few of the younger children, and other such variations due to differences in age are noted. All of the children, however, scorned the idea of leaving home, an attitude most probably fostered by the fact that they have spent such a long period in the hospital and were anxious to return home. A reference to Table IV will show that the majority of the children had at one time thought of leaving home.

Additional Tests. In addition to the Cavan-Burgess test, and in order to test the hospitalized children's reactions under the influence of a variety of diseases (the child having passed the acute stage of the disease, however) certain tests were devised by the investigator to test initiative, creativeness, and cooperation; also a color test was given.

The reaction of various physical states to interest, which is closely allied to initiative, was shown in the color preference; and also in the tests showing the child's favorite sport, his favorite color, his favorite study, his favorite work, and favorite things to eat. The response of the children to these tests was eager and enthusiastic.

There can hardly be found a better measure of traits of character than interest, and much further work, this investiga-

tor feels, might be done in this direction. Once having determined, by such tests, a trait in which the child was deficient, development in that particular direction might be effected.

A fundamental necessity in interpreting data gathered from a specially selected sampling is a so-called "normal" group with which to compare the results. So many factors enter into the building of a truly representative sampling, such as age, race, nationality, education, economic and social background, etc., that obviously difficulty would be encountered in any attempt to interpret statistics from just one group. The only other available study of this kind which has been made to any extent is that of the White House Conference in 1930. But the great mass of material gathered from these schedules, which were given to thousands of children, has made tabulation and analytical work slow and tedious. Since tabulations have not been made on the items concerning favorite sports, and favorite foods, there are no comparable figures, and the following tables are presented merely for interest.

(Tables showing the results of these tests follow.) There was also devised, by the investigator, a test for initiative which called into play the little patient's creativeness.

It is the opinion of this student that the lives of our children in the public schools, especially, are entirely too rigidly regimented; so that natural creativeness lies dormant or may be actually killed.

She conceives of the hospital ward as a situation where this educational lack may be partially corrected.

Thus, in the case of her convalescent children, she puts into their hands certain raw materials; namely, scissors and colored paper; and without directing them in any way, observes what they will do.

It is significant of the sudden revival of interest and display of initiative which comes in this convalescent period that in no case does the child lay aside the materials and do nothing with them. Instead, he at once begins creating (to him) beautiful things; and a few samples of the children's work which I enclose in an envelope accompanying this thesis will attest to the child's inventiveness and revived interest in life, following, in many cases, serious illness.

SUMMARY

Inasmuch as the investigator has indicated, throughout this thesis, material which might reasonably have gone into a summary, it will be necessary here, merely to recapitulate in conclusion.

Somewhat to the surprise of this investigator, in spite of the fact that she had rather expected the confirmation of her main contention, the result of the test which she made on over two hundred hospitalized children actually found them to be better adjusted, and less neurotic, than the children in the normal group.

Her supposition was, from experience in the Cook County Children's Hospital, that it might be possible, through superior pediatric care, to engender a degree of initiative cooperation in the convalescent hospitalized child not appreciably less than found in his well brother. She had also observed the sudden rush of mental vigor and interest in life which comes during convalescence; and believed from her experience that convalescent children need not be lacking in initiative or cooperation, if nurse, teacher and physician, had done their duty.

It is the opinion of this investigator, however, that work in this field has only begun, and that the future will witness an improvement in our treatment and education of children hardly dreamed of at the present time.

In tabulating the results of this investigation, both of the normal and the hospitalized children, a trial of disappointment and bitter disillusion with life is witnessed on the part of the child; and these "cold figures" cannot but convince any student of this problem that something must be vitally wrong with us, as adults, if to take one illustration, 20% of the hospitalized, and 28% of the normal children wish they had never been born.

Another significant question is number six- "Do you ever feel that someone is trying to do you harm?" And when 29% of the hospitalized children and 35% of the normal children answer "Yes" to this question, this should be enough to make the heart of even the "scientific" investigator stand still.

The answers undoubtedly show that we, as nurse, teacher, physician, and adult, are guilty of a lack of understanding in our dealings with children.

The thesis, inadequate as it is, points the way toward a betterment of the conditions unearthed by the questionnaire; and it is hoped that it will be of use to hospital nurse, teacher and physician alike.

APPENDIX

The Color Test. In order to determine the color preferences of hospitalized children, ninety-four were given a color preference test by the investigator. The colors chosen were red, orange, blue, green, violet and yellow.

The investigator was interested in comparing the results obtained, with the results obtained by S. E. Katz who tested 2,500 school children from kindergarten to college freshman. "Journal of Applied Psychology" Vol. 6-1922, p. 255-266.

Katz wished to discover some of the factors upon which color preference of children is based. To determine:

1. Whether certain colors are perse generally pleasing.

2. Whether color preference varies with increase in age and intelligence development.

3. Whehter colors preferred during the adolescent period differ from those preferred during the pre-adolescent period.

4. Whether social status is a determining factor in the preference for colors.

5. Whether the two sexes show any difference in their aesthetic evolution of color.

Summary of Katz's Results

1. Ages 5-15 blue most frequently preferred.

Of approximately 2,500 pupils tested, 47% found blue pleasing.

Green distinct second, red a close third, violet and yellow occupied next position, and orange least pleasing of six.

2. There was in general a distinct rise in preference value of green, blue and violet, the colors of short wave length and a corresponding decline in red, orange and yellow, colors of long wave length, as the children advanced in age.

3. Comparing adolescence and pre-adolescence, most noticeable differences were the marked loss in popularity of orange and yellow, and increase in popularity of green as children matured.

4. Red was found to be a greater favorite among children of poor than well-to-do neighborhoods, during early years; reverse true of green.

Differences due to social status tended gradually to be overcome as children advanced in years and school attainment.

5. No striking differences between color preferences of sexes.

6. Both sexes of kindergarten age showed preference for saturated colors.

7. Definite quantitative knowledge of color, preferences of children has profitable application to production and distribution of many articles where the child is permitted to determine the selection.

Summary of Color Test on Hospitalized Children

1. Red and blue tied for first place.

Red was second, then followed yellow, orange, with green at the bottom of the list.

2. Sex - some difference shown.

	First Choice	Second Choice
Boys	Red	Orange
Girls	Blue	Red

3. It has been found in giving work to hospitalized children that they prefer the colors of longer wave length, as red, yellow, and orange. There seems to be a marked aversion to the use of purple.

Due to the small number of children tested, one can hardly consider the results accurate. However, the investigator is continuing this piece of research.

TABLE V

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Color Preference in Hospitalized Children
94 Used in Test

Red and blue tied for first place (42%); red was second choice (22%); green was at the bottom of the list.

Boys	Girls
First Choice - Red	First Choice - Blue
Second Choice - Orange	Second Choice - Red
Third Choice - Red and Blue tied	Third Choice - Red, Orange and Violet tied

Ages - 6 to 14 inclusive.
Grades - 1 to 8

PREFERENCE BY GRADE

Grade	First Choice	Second Choice
1	Blue	Orange
2	Red	Yellow
3	Red	Green
4	Yellow	Blue
5	Yellow	Blue, Red tied
6	Blue	Red
7	Violet	Blue
8	Blue, Violet tied	Red, Blue tied

PREFERENCE BY AGE

Age	First Choice	Second Choice
6	Green	Orange
7	Red	Yellow
8	Blue	Red
9	Blue	Red
10	Blue	Red
11	Red	Green
12	Blue	Red
13	Violet	Red
14	Blue	Red

TABLE VI

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN MADE BY THE PRESENT INVESTIGATOR

Color Preference in Hospitalized Children
Total - 94 Cases

	Surgical - 60		Medical - 34		Medical-Surgical - 94	
1 -	Red	13	Blue	8	Red, Blue	20	21%
	Blue	12	Red	7	Orange, Yellow, Violet,	14	
2 -	Blue	15	Red, Orange	8	Red	21	22%
	Red	13	Violet	6	Blue	17	
3 -	Blue	15	Violet	8	Red	19	20%
	Red	12	Red	7	Blue	18	
4 -	Orange	14	Orange	9	Orange	23	
	Yellow, Violet	13	Yellow	7	Yellow	20	
5 -	Violet	13	Yellow	9	Yellow	20	
	Green	12	Green, Blue	7	Green	19	
6 -	Green	14	Violet	8	Green	21	22%
	Violet	12	Blue	7	Violet	18	

	Boys - 62			Girls 32			Age		Grade	
1 -	Red	13	21%	Blue	9	28%	6	13	1st	28
	Violet	12		Red	7		7	6	2nd	7
2 -	Orange	12	19%	Red	10		8	11	3rd	12
	Red, Yellow, Blue	11		Yellow, Blue	6		9	9	4th	14
3 -	Red, Blue	13	21%	Red, Violet	6		10	14	5th	21
	Yellow	10					11	14	6th	6
4 -	Orange	16	25.8	Violet	10		12	13	7th	4
	Yellow	14		Orange	7		13	12	8th	2
5 -	Red	12		Yellow, Green	8		14	1		
	Green, Violet	11		Blue	6					
6 -	Green	14		Green	7					
	Blue, Violet	11		Orange	6					

TABLE VII

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Color Preference in Hospitalized Children

Grade	First Choice			Second Choice		
1st	Blue	8	61%	Orange	10	77%
2nd	Red	3	43%	Yellow	3	43%
3rd	Red	4	25%	Green	4	33-1/3%
4th	Yellow	4	28.5	Blue	5	35.7
5th	Yellow,	6	28.5	Blue, Red	5	23.8
	Red	6				
6th	Blue	3	50%	Red	3	50%
7th	Violet	3	75%	Blue	2	50%
8th	Violet,Blue	1	50%	Red, Blue	1	50%

Age	First Choice	Second Choice
14	Blue	Red
13	Violet	Red
12	Blue	Red
11	Red	Green
10	Blue	Red
9	Blue	Red
8	Blue	Red
7	Red	Yellow
6	Green	Orange

TABLE VIII

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Surgical

Name	Age	Grade	Nationality	Brothers Ages	Sisters Ages
Jennie S.	12	5	Italian	6	9-14-20
Laverna W.	7	2	German		
Clara V.	13	8	Italian	4-15-17-19	9-11-21
Dorothy K.	12	2	Polish	13	14-16
Louise St.P.	6	Kdg.	Irish	8-10	
Evelyn H.	6	1	Amer.(Col)		
Dolores R.	6	Kdg.	Polish	10	
Marie B.	6	1	Amer.		
Lillian M.	7	1	Polish		6
Charles A.	8	4	Irish	2	4-6-10
Bernard D.	12	6	Irish	17	21
Francis R.	9	3	Amer.	4-13	2-7-10-12
Leo F.	7	2	Amer.	6	1
Taylor M.	10	4	Amer.(Col)		14-16
Bertram S.	13	7	Jewish	30-36	24-26
Frank R.	10	3	German	4-6	3-8-13-15-17
Morris G.	11	5	Austrian	9	7
Ronald P.	12	5	German	14-16	17
Leo M.	12	6	Irish	16-21-24	18
Robert P.	6	1	Amer.	4	
Mike I.	13	8	Italian	5-8-11-17	15-18
Charles S.	13	7	Amer.		11
John W.	12	6	German	16-19	
Wadsworth J.	8	3	Amer.	4-6-9-11	4 Mo.3-13

TABLE IX

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Surgical

Name	Favorite Sport	Work
Jennie S.	Radio - Movies	Wash dishes
Laverna W.	Play with toys	Dust chairs
Clara V.	Movies - Bridge - Radio	Cooking, Cleaning House
Dorothy K.	Play games	Scrub floors
Louise St.P.	Play with wagon	Dry dishes
Evelyn H.	Staying in hospital Playing with kids	Cook - dust
Dolores R.	Play dolls	Sweep floors
Marie B.	Dolls	Dry knives and forks
Lillian M.	Dolls	Wash dishes
Charles A.	Baseball	Coal and Wood
Bernard D.	Football - basketball Swimming	Clean house every second Saturday
Francis R.	Run in streets - Hitch	Wash dishes
Leo F.	Play on slide "When my mother ain't looking 'cause I wear a hole in my pants seat"	Bring in wood
Taylor M.	Ball	Wipe dishes
Bertram S.	Hike - Camping	Clean garden
Frank R.	Baseball	Coal and wood
Morris G.	Camp - Hide and Seek	Go on trucks - pick coal
Ronald P.	Baseball	Wood and coal
Leo M.	Baseball	Clean up house
Robert P.	Play "it"	Pick up papers
Mike I.	Football - Basketball	Carry coal and wood
Charles S.	Baseball - Football	Run errands
John W.	Baseball	Sweep
Wadsworth J.	Baseball	Scrub floor

TABLE X

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Name	Study	Surgical Color	Things to eat
Jennie S.	Arithmetic	Green	Peanuts - ice cream pickles - chicken - spinach
Laverna W.	Arithmetic	Purple	Ice cream - candy
Clara V.	Arithmetic	Orange	Ice cream - candy - pop - peanuts - cheese - eggs
Dorothy K.	Read English	Red	Potatoes - sausage - candy egg
Louise St.P.	String beads	Green	Pickles - ice cream - oat-meal
Evelyn H.	Make things	Purple	Spagetti - sausage - fish sardines
Dolores R.		Red	Spinach - cabbage - candy onions
Marie B.	Write on Board Gym	Orange	Potatoes - macaroni - bacon applesauce
Lillian M.	Write	Red	Chicken - steak
Charles A.	Drawing	Red	Potatoes - string beans - ice cream - spareribs
Bernard D.	Science Stars	Red	Corn beef and cabbage - spagetti - beef - macaroni corn - hot dogs
Francis R.	Writing	Red	Ice cream - candy
Leo F.	Write	Blue	Bananas - sauerkraut
Taylor M.	Write	Orange	Oranges - apples - round steak
Bertram S.	History-Art	Yellow	Chicken - fish
Frank R.	Spelling	Red	Spagetti-prunes - beans - onions
Morris G.	Geography	Orange	Vegetable-fruit -ice cream
Ronald P.	Art	Red	Spagetti - beans
Leo M.	Arithmetic	Red	Ice cream - turkey - cabbage
Robert P.	Sit quiet	Orange	Oatmeal - Farina - corn flakes - potatoes
Mike I.	Science	Red	All Italian stuff - spinach
Charles S.	Arithmetic	Red	Spagetti - bacon - string beans
John W.	Arithmetic		
Wadsworth J.	Arithmetic	Orange	Pork and beans - steak - cheese - chop suey

TABLE XI

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Medical

Name	Age	Grade	Nationality	Brothers Ages	Sisters Ages
Gilbert M.	13	5	Irish	6-16	8
Harry M.	8	1	German	6-12-21-23	
Lawrence M.	6	2	Irish	10-12-13-16	5-7
Douglas J.	11	6	Swedish	8	
Robert C.	8	3	Irish	9 Mo.9-10	1-4-14
Jim de F.	7	3	Polish -		5
Irving K.	5	Kdg.	Polish		Just another baby
Donald F.	4		Amer.	6-8	
Robert C.	5	Kdg.	Polish	5-6	7
Alfred E.	12	6	German		6
Jacob R.	10	2	Jewish	15-17-19	21
Fred S.	7	3	German	4-6	
Louis G.	5	Kdg.	Italian	10-12	
Katie F.	5	Kdg.	Italian		
Eileen M.	5	Kdg.	Irish	6-13-16	
Elsie H.	13	7	Bohemian	8-16	
Dorothy C.	13	7	Irish and Dutch	7-10	5-10-11
Alberta P.	7	1	Amer.(Col)	9	7

TABLE XII

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Medical

Name	Favorite Sport	Work
Gilbert M.	Movies	Haul coal on sled
Harry M.	Sit on floor play cards	Sweep floor
Lawrence M		
Douglas J.	Football - Baseball	Wash and wipe dishes
Robert C.	Play games	Shovel snow
Jim de F.	Play ball	
Irving K.	Make noise	
Donald F.	Balloon	
Robert C.	Run	Make beds - wash dishes
Alfred E.	Movies - Checkers	Wash dishes
Jacob R.		
Fred S.	Baseball	Wash dishes
Louis G.	Shooting	
Katie F.		Sweep
Eileen M.	Cut out	Wash dishes
Elsie H.	Swimming - Roller Skating	Clean rugs
Dorothy C.	Swimming - Ice Skating	Making beds
Alberta P.	Movies	Sweep up

TABLE XIII

SUMMARY OF TESTS WITH HOSPITALIZED CHILDREN
MADE BY THE PRESENT INVESTIGATOR

Medical

Name	Study	Color	Things to Eat
Gilbert M.	Arithmetic	Red	Chicken - ice cream - toast
Harry M.	Reading	Blue	Meat - potatoes - candy - fruit
Lawrence M.	Reading	Orange	
Douglas J.	Arithmetic	Blue	Spagetti - lamb chops - baked potatoes
Robert C.	Reading	Red	Candy - pickles - ice cream
Jim de F.	Reading	Red	Spagetti - mashed potatoes milk bread
Irving K.		Red	Sausage - milk - buns
Donald F.		Orange	Ice cream - candy
Robert C.	String beads	Orange	Fruit - ice cream - candy
Alfred E.	Reading	Red	Milk - eggs - meat - ice cream
Jacob R.	Spelling	Red	Ice cream eone
Fred S.	Arithmetic		Potatoes - pork and beans
Louis G.	Arithmetic	Green	Fish
Katie F.	Picture Books	Green	Spagetti - ice cream - onions - macaroni -
Eileen M.		Orange	Ice cream - candy
Elsie H.	Spelling	Blue	Corn on cob - pineapple - chicken - chop suey
Dorothy C.	Spelling	Red	Fruit - breaded pork chops pork - steak - turkey
Alberta P.	Draw		Jelly - pop - cake - apple-pie - sweet potatoe-pie - chicken

TABULATION

NATIONALITY

American	10	(3 colored)
Irish	9	
German	7	
Polish	6	
Italian	5	
Jewish	2	
Austrian	1	
Bohemian	1	
Dutch	1	
Swedish	1	

FAVORITE STUDY

Arithmetic	10
Reading	6
Writing	5
Spelling	4
Hand work	3
Science	2
Art (sculptoring)	2
Drawing	2
Geography	1
History	1

FAVORITE SPORT

Baseball	12
Games and toys	8
Movies	5
Dolls	3
Football	3
Swimming	3
Radio	2
Camping	2
Bridge	1
Basketball	1
Stay in hospital	1
Run in street	1
Hitch	1
Play on slide	1
Hike	1
Roller Skating	1
Ice Skating	1
Shooting	1
Run	1
Make noise	1
Sit on floor and play with cards	1

FAVORITE THINGS TO EAT

I. Vegetables
II. Ice Cream
III. Meat
IV. Fruit
V. Fowl, especially chicken
VI. Candy
VII. Fish
Pickles
Eggs
Milk
VIII. Cake and pie
Peanuts
Pop
Cheese
Cereal
Chop Suey
Bread and buns
IX. Sauer kraut
Italian Stuff
Toast

FAVORITE WORK

Dishes	2
Haul wood and coal	7
Sweep	5
Clean house	4
Cook	2
Dust	2
Make beds	2
Scrub	1
Clean garden	1
Pick up papers	1
Run errands	1
Shovel snow	1

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The thesis, "Initiative and Cooperation in the Convalescent Hospitalized Child," written by Sibyl Catherine Davis, has been accepted by the Graduate School of Loyola University with reference to form, and by the readers whose names appear below with reference to content. It is, therefore, accepted as a partial fulfilment of the requirements for the degree conferred.

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