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THE PSYCHOLOGY OF THE ELEMENTARY-SCHOOL CHILD

THE PSYCHOLOGY OF THE ELEMENTARY-SCHOOL CHILD

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THE PSYCHOLOGY OF THE
ELEMENTARY-SCHOOL CHILD

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INTRODUCTION

The child-study movement in this country stems from the stimulating days in the last quarter of the nineteenth century, when graduate students were lighting their torches from the brilliant flame kindled by the late G. Stanley Hall. His influence has been felt in every university and in every center for child research in the civilized world. While his methods lacked experimental buttressing, and while some of his conclusions and theories have been judged untenable by more modern research workers, the tremendous impetus his peculiar genius and insight gave to the movement is still felt by specialists working in this field.

Since Hall's time, and with increasing tempo in the last two decades, a prodigious amount of research has gone forward in child psychology, both in this hemisphere and in Europe. In the United States much work in many centers has been accomplished; much more is still in progress. The number of brilliant books published within the past dozen years eloquently testifies to the value of this research.

To present an additional volume in child psychology at the present time might seem bold. The author is, however, undertaking to perform a specific task that has not yet been adequately done. Most authors of textbooks in child psychology feel impelled to analyze and interpret the research that has been carried on at every succeeding level of childhood. In consequence, they of necessity devote much attention to heredity and its mechanism; to prenatal behavior; to the activities of the foetus and the neonatus; to the growth and development of the infant, the toddler, and the nursery-kindergarten child. Since much more is known about the first six-year period of life than is known about the second six-year period, most writers devote to the former an amount of space disproportionate to that which they reserve for the latter. A few authors of child-psychology textbooks, for completeness, append a final section dealing with the psychology of the adolescent. Such a comprehensive survey of the entire field is logical, and meets the needs of those students and readers who desire a more or less complete and sequential presentation of the development of the child, inclusively from the time of his grandparents to his own adolescence.

The author of the present volume, however, has projected the

task of writing a book about the child of school age; that is, the child from six to twelve years. He has had focally in mind the unmet needs of tens of thousands of teachers in training, cadet teachers, in-service teachers, and teachers back from their schools for further intramural study. All of these professional craftsmen—potential and actual—work, or will work, with children in the age group indicated. It is of small consequence to them, and of still smaller practical use, to study laws and principles of heredity, along with the psychology of the neonatus, the toddler, and the adolescent. In the all-too-short time they have available for child psychology, they particularly need to focus on the life-age of their pupils. Only incidentally, as he has thought it helpful to throw light on subsequent behavior, has the author concerned himself with children below school age. Of the adolescent, he has made no mention at all, beyond occasional prognosis with respect to future adjustment of younger children. He has attempted to leave the pre-elementary pupil and the post-elementary pupil, alike, out of the picture, and to write about those twenty million or more children who present the problems, absorb the efforts, and comprise the hopes of elementary teachers.

With theories and moot questions he has not been greatly concerned. His efforts of thirty years spent in encouraging and training teachers to look upon their pupils with interest and with some degree of common sense and understanding, and his long experience as a consultant with parents and as an interpreter to them of their children, have emboldened him to compile this volume. He has maintained the mental hygiene point of view throughout, and he hopes that those who use the book will be helped to become better teachers because they comprehend somewhat better the nature of the child and his dynamics. With the suggested identification of specific child patterns called for at the beginning of each chapter; with the questions for discussion following each chapter; with the very carefully selected references intended to provide further reading for enrichment and more complete understanding; and with a vocabulary adapted to the level of students in training, the author trusts that *The Psychology of the Elementary School Child* may find a modest and useful place in the field of child psychology.

LAWRENCE AUGUSTUS AVERILL

Worcester, Massachusetts
May 1948

THE PSYCHOLOGY OF THE ELEMENTARY-SCHOOL CHILD

CHAPTER I

PERSONALITY ADJUSTMENT OF THE SCHOOL CHILD

Some Children To Identify in Your Room

A child who . . .

(1) appears to be inadequate; an adequate one;
(2) is anxious, timid; one who is confident and aggressive;
(3) is negativistic; one who is cooperative;
(4) is often disobedient; is normally obedient;
(5) is usually honest and reliable; one who is dishonest, unreliable;
(6) is a leader; one who is content to follow;
(7) feels inferior; one who has much self-confidence;
(8) tends to be ascendant; one who tends to be submissive;
(9) tends to be introverted; one who is extroverted;
(10) appears immature for his age; a more mature child of equal age;
(11) is undergoing observable change in personality pattern;
(12) manifests some of the obvious concomitants of learning;
(13) is bored by pursuit of obscure or meaningless goals;
(14) is overage as compared with the other children;
(15) exhibits signs of nervous tension;
(16) manifests symptoms of "verbal" morality;
(17) seems to be lacking in status; one whose ego is evolving satisfactorily.

GENERAL ORIENTATION

The *whole* child goes to school: the reading and number child, the subject-learning child, the skill-gaining child, the physical child, the socio-moral child, the family, neighborhood, and gang child, the personality child. The last-mentioned component in the juvenile totality is of tremendous significance. What teachers may do to nurture an integrated and adequate personality in each child is ultimately quite as important as the narrower and more conventional contributions they may make to his mental or physical development. The time is now rapidly passing when the principal concern of teachers was simply to impart information to their

pupils. Basal to all juvenile development is the growth of personality, and we fortunately possess much helpful information on this highly significant phase of childhood.

ADEQUACY AND INADEQUACY PATTERNS

In any schoolroom will be found a varied assortment of juvenile personalities. True, they are all children of tolerably similar social extraction, clustering around the average age for their grade, but their nascent personalities are quite as different as their faces. If they are six- or seven-year-olds, newly arrived on the school scene, their personality traits are principally the product of their respective homes and family experiences; if they are ten- or eleven-year-olds, their traits are a joint product of these, plus accumulated school and community and gang experiences. Personality does not evolve in a vacuum. Even Topsy didn't "just grow," as she opined; she grew in a molding environment composed of experiences with people, objects, and events, and of their impacts upon her.

By the time a child reaches school, the underlying patterns of his personality have already been pretty well established. Psychologists have long understood that the first four or five years in a child's life are fundamental in shaping his subsequent character and personality traits. In this, they are in agreement with John Milton's famous lines:

> The childhood shows the man,
> As morning shows the day.

It is obvious, from the very nature of the family setup, that the influences that most profoundly shape the child's traits are those exerted originally by his parents. It is they who condition him to most of the forces and agents that play upon him, not only under the rooftree but subsequently in the world that lies beyond the doorway and the yard. Nothing can subvert the prepotency of these early influences; they determine, largely, the direction of the child's unfolding. As he crosses the threshold of the school, the child displays a specific personality complement to which he has been predisposed by his parents and his home.

He may, for example, strike his teacher almost at once as an adequate child, well equipped to hold his own and to win his way in his new schoolroom surroundings. He may, on the other hand, seem woefully inadequate in the challenging situation that now

confronts him. Instead of being self-confident and assured, he may turn out shortly to be unsure of himself, inferior, retiring, inhibited.

Other things being equal, the adequate type of juvenile personality reflects early home and parental efforts to train the child to rely upon himself, to make decisions, to put forth effort in positive ways, to stand on his own feet, to fight his own small battles. The inadequate child, on the contrary, reflects the unfortunate influences of parents who have either not known how to encourage these positive traits or else have allowed negative ones to creep in to keep the child infantile and overdependent. In either case, once the shadow of the school falls across the young entrant, he inevitably reacts characteristically to the new social scene. Adequate at home, he is likely to be adequate at school; inadequate at home, he tends to be inadequate at school.

VENTURESOMENESS AND TIMIDITY PATTERNS

Similarly, children at the primary level may manifest a great deal of anxiety, many fears, and much timidity, or they may exhibit diametrically opposite traits, depending upon the nature of the parental and general family influence and example. During the very first day at school, a child may be bold, venturesome, original; or, on the other hand, he may be fearful, timid, anxious. One child would run the whole schoolroom according to his liking, while another would run home if he dared take the initiative to do so. Back of timid and anxiety-ridden children are likely to be either harsh parents who dominate their offspring tyrannically, or timid, nervous parents who pass on their virus to their boys and girls, or insecure and anxious parents who provide a like background for their children. Chameleonlike, the progeny is apt to reflect the lights and shadows of the parents' personalities.

Happily, there are some children who are strangers to fear, who are bold and convincing, and whose days and work are filled with plan, purpose, and drive. These boys and girls come, largely, from homes where dwell security, confidence, and serenity, and these characteristics somehow work their way into the growing young personalities.

OBEDIENCE AND DISOBEDIENCE PATTERNS

Obedience and disobedience too! There are wide discrepancies among children. Some of them will obey consistently and cheer-

fully; others will either disobey cheerfully, or will obey sullenly and argumentatively. While too-high standards cannot be expected of children, and while implicit and ready obedience may betoken at times a less healthy personality than a spirited disobedience might, it is true that the general pattern of obedience-disobedience is blueprinted in the early family training, and that children inevitably betray the parental indoctrination and expectation.

One has only to listen in any neighborhood to be convinced of the futility with which some parents try to impress lessons of obedience upon their children. In almost any community there is plenty of evidence of children's disobedience, both wanton and deliberate. Parents even admit they are almost helpless in the situation. Consequently, there troop into the schools, along with the reasonably obedient and cooperative children, many whose home training in this vital matter has been deficient or actually non-existent.

LEADERSHIP-FOLLOWERSHIP PATTERNS

Still another area in which distinct personality patterns emerge well before school age is in leadership-followership. Parents often observe in a child a strong proclivity toward assertiveness and leadership, which shows itself prominently in the play setting. He tends to "boss" and to order about the other children in the group; he exhibits impatience with the conduct or performance of the others; and he is determined to set the stage and manipulate the actors according to his own predilections. Nursery-school and kindergarten teachers identify such aggressive children very early, just as they do individuals of the opposite personality pattern who rarely assume any leadership, being content to go along peaceably and perhaps admiringly with the stronger personalities in their midst.

Unassertive children who rarely or never project themselves actively and dominantly into the juvenile scene may reflect parental repression, disparagement, or "nagging." Never having been given opportunity at home to assert themselves, to carry out their schemes, to develop pride and faith in themselves, they arrive at school age poorly equipped to assume their proper part in the new social milieu. Happily, as we shall see later, this holdover from the home influence may well represent merely an arrested phase of personality evolution. Under the stimulating and enabling situations provided by the new and wider schoolroom setting, some of these

unassertive children may shortly surprise everybody with the emergence of their true personalities in which a good degree of leadership and dominance may be evident.

INFERIORITY PATTERNS

One must not expect such transformation as this to be the rule, however, among children of the naturally unassertive, withdrawing type. In every schoolroom there are the definitely inferior children, and the best and most consistent efforts of a teacher to draw them out and endow them with self-confidence and assertiveness will meet with only mediocre success.

Many basic factors are responsible for producing the inferior-feeling individual. Especially noteworthy are physical abnormalities and defects of one sort or another. Deformities, birthmarks, and atypical size or weight often depress children and makes them feel inferior. Pecularities of stature, of proportions, of hair color; blemishes and scars, pimples and warts, bowleggedness, defects of vision or hearing or muscle coordination—these are common physical bases for a hounding sense of inferiority. Frequently, to make matters worse, such characteristics are seized upon by playmates as points of reference for bantering and name-calling, and this only intensifies the harassment and insecurity of the victims.

Too, inferiorities sometimes have their origin in the frustrations that come to many a child because of mediocre endowment and because of mounting failures to achieve scholastic security. If a child fails day after day in doing the work expected by the school, and if he is unable to contribute acceptably to the purposes and procedures of the class group, he begins shortly to compare himself unfavorably with the other children; this magnification of his shortcomings provides an almost certain foundation for an insecure and inadequate personality.

Inferior feelings spring likewise from inhibited and unsure personalities that have been fostered by poor parental handling and training. It must be expected as a matter of course that a child who is given little opportunity or encouragement at home to develop positive self-expression and confidence will be decidedly weak in these attributes when he passes beyond the family circle into the wider sphere of juvenile society as it exists in a typical schoolroom. While some naturally aggressive children will be able to make a swift adjustment when they reach school and become assertive

almost from the first day in the primary group, others less strongly oriented will present a daily picture of aloofness, uncertainty, secretiveness, and inferiority as they mingle with their mates. The parental brand has been indelibly seared into their personalities, making them inhibited and aloof because their initiative has been paralyzed. You will not have too-great difficulty in identifying in the schoolroom such unadjusted, inadequate types.

TWO BASIC PERSONALITY PATTERNS: ASCENDANCE-SUBMISSION

There is a persistent popular belief that people in general are divisible into two types in every category. There are said to be, for example, the bright and the dull, the good and the bad, the clever and the stupid, the sane and the insane, the moral and the immoral. Critical thinking and research, however, make us incline to the theory that there are such wide divergencies in every trait and in every group that it is wrong to try to "type" people. Abilities and character and personality traits follow a continuous curve of normal distribution in the population as a whole, the very bright, for example, merging gradually into the bright, the bright into the high average, the high average into the average, the average into the low average, and the latter descending slowly to merge into the dull, the very dull, the borderlines, the morons, the imbeciles, and finally the idiots. The gradation from the top to the bottom is continuous and gradual.

Similarly with all the other traits that make up the ensemble of personality. There is a continuous gradation among individuals from those who possess a given trait generously to those at the other end of the distribution who possess it only in an infinitesimal degree. Consequently, a teacher should not make the mistake of classifying her children into the smart and the stupid, or into the lying and the truthtelling, or into the leaders and the followers. Only the mentally slipshod and undiscriminating teacher will fall into this error.

However, in spite of all this, two principal contrasting personality *patterns* do emerge characteristically in a group of children. Although the terminology for these two patterns varies somewhat among psychologists, we shall use here the terms "ascendant" and "submissive." Within the compass of the former are those children who are assertive, self-willed, "heady," "born to rule." They are the ones who direct the play, choose the game, judge the perform-

ance; they are the ones who carry the ball, lead the escapade, direct the attack; they are the resourceful, the demonstrative, the assured, the dominant. "Submissives," as the epithet implies, are the children who are definitely "under the yoke." They supply brawn more than brain, numbers more than fire and fanfare. They accept the dominance of the ascendants, usually without much protest, and allow themselves to be swept along by their brass and their vociferousness. Submissives are likely to be the struck, not the strikers; the pushed, not the pushers; the denounced, not the denouncers. As we shall note subsequently, however, there is some possibility of change in these characteristic ascendance-submission traits, and submissives may, in some cases, become to a degree ascendant in one or another area of their expressive lives.

Various researches have indicated rather strongly [1] that ascendance-submission represents an innate, temperamental condition, and that, although obviously environmental training and forces may affect it profoundly, it is a real preconditioning exerted through the heredity of the child. Observers have noted these two patterns of behavior in young children from the earliest weeks of postnatal life, one child being placid, docile, tolerant of physical discomfort, while another remains consistently irritable and vigorous in his protest at discomfort or suspense.

PERSISTENCE OF PATTERN THROUGH THE YEARS

In this connection, child psychologists have shown strikingly that coming events indeed cast their shadows before, for a strange and fascinating consistency in the infant's dominance-submission pattern is found to persist as it grows older. Numerous biographical accounts are available [2] to indicate this tendency for original patterns to persist. For the most part, however, it must be confessed that studies of this sort have been confined usually to the preschool years, and have rarely been continued up into the elementary and

[1] A. L. Gesell, *Infancy and human growth* (New York: Macmillan, 1928).

M. M. Shirley, *The first two years* (Minneapolis: University of Minnesota, 1933).

[2] J. Dollard and others, *Frustration and aggression* (New Haven: Yale University Press, 1939).

A. L. Gesell and others, *Biographies of child development* (New York: Harper, 1939).

M. B. McGraw, *Growth: a study of Johnny and Jimmy* (New York: Appleton-Century, 1935).

later school years. Here is one of the greatest weaknesses of a practical child psychology for teachers in the schools. Research workers limit themselves far too commonly to the neonatus and the toddler, about whose reactions we now have a rich fund of information; they rarely follow through their studies with older children.

RESULTS OF RESEARCH

Still, such evidence as we do have seems to indicate, with plenty of exceptions, that a given child tends to be the "same child" from year to year. Ascendant, assertive, social, practical-minded at two, he will in all probability continue to manifest these traits at twelve; or again, submissive, withdrawing, introverted at two, he will be found to show these qualities at twelve.

One investigator, for example, tells [3] of a three-year-old boy who cared little for social contacts with other small children, being more particularly interested in adults. He disliked play and condemned the activity of his mates as "childish." Despite teacher efforts to socialize this boy, he continued to be a more or less solitary child right up into the grades, finding his satisfactions in adult contacts and in his own rather rich associative life. Other investigators have reported similar findings. In another study, [4] two identical twins, separated at the age of one month and brought up in sharply contrasting environments and cultures, were found at ten to be remarkably similar in intelligence, somewhat less so in some personality traits, decidedly less so in some others, but on the whole more similar in these traits than children of different heredity. This circumstance would seem to indicate that basal, inherited patterns tend to persist. Many psychologists have found that children who early manifest mechanical bents, stick-to-itiveness, methodicalness, friendliness, or their opposites, run true to the same forms as they grow up. Looking backward over a period of years, one can readily discern the same threads interweaving themselves through the personality.

CHANGES IN PATTERN MAY OCCUR

But we must not close our eyes to the fact that striking personality changes may also occur. Let an occasional child who feels him-

[3] A. T. Jersild, *Child psychology* (New York: Prentice-Hall, 1947).
[4] H. H. Newman, F. N. Freeman, and K. J. Holzinger, *Twins: a study of heredity and environment* (Chicago: University of Chicago Press, 1937).

self inferior and submissive make the discovery that he can "strike back," and he may be transformed from a withdrawing, passive sort into a battling, protesting individual who wrests security and domination for himself from a harsh and tantalizing environment. Numerous cases might be cited of unwanted children, or of children who early were made to feel inadequate and insecure, or of children whose apparent potentials for aggressiveness and self-projection were close to the zero point, who in the course of their maturational and developmental histories have made a rightabout-face so far as their personality traits were concerned. Turning from flight, they stand and fight, and fighting, they feel a heartening sense of exultation and flowering self-esteem that might otherwise never have been tapped.

Even so, it is open to question whether a child who is driven by rebellion or inferiority into self-assertion develops quite as genuine a security and confidence as does the child who is naturally dominant. Allport refers [5] to a "plane of ease" which every individual finds for himself with reference to dominance and submissiveness, and which he tends to maintain in most situations into which he is projected.

Personality is such a many-sided thing, and the environmental forces that play upon the individual are so ramified that one should avoid being too didactic in weighing either the innate, inherited predisposition toward ascendance or submission, or the varying potency of environmental forces and influences that play their silent but powerful roles in the shaping of personality. Children not only vary enormously among themselves in the ascendance-submissiveness trait, but the same individual may exhibit variance in it under different circumstances and at different times. Consistency, therefore, either in the trait or in the individual cannot be postulated. About all one can say is that in most children there is a tolerable consistency of the personality pattern from year to year, and that this pattern is in part predetermined by heredity and in part shaped postnatally by experience and training.

Experimental efforts to bring about change in the ascendance-submission pattern of individual children have seemed to demonstrate [6] that the earlier in a child's life efforts at modification of a trait are applied, the better will be the chances of achieving the

[5] J. J. B. Morgan, *Child psychology* (New York: Farrar, 1942).
[6] M. E. Breckenridge and E. L. Vincent, *Child development* (Philadelphia: Saunders, 1943).

result desired. Mature individuals have become pretty much "set" in their complement of traits, and, barring miracles or great shock, tend to resist change. Very young children, on the other hand, possess a fluidity of traits, which makes it possible for them to be more readily sluiced into desirable or undesirable channels, depending upon whether the manipulative forces direct development wisely or unwisely.

In the Iowa Child Welfare Research Laboratories, Dr. L. M. Jack, working with four-year-olds, found [7] the principal lack in the submissive or non-ascendant child to be lack of self-confidence. After she had trained such children in various skills and achievements unknown to the ascendants with whom she paired them for study, she found them much more inclined to assert themselves dominantly than they had been before training.

Other studies carried on at the Iowa Center corroborate [8] Dr. Jack's findings and indicate that when suitable training has eliminated an earlier discouragement over failure and has provided the basis for a dawning success, the child makes "remarkable improvement," substituting for the earlier crying, destructiveness, and negative behavior a new interest and effort. The implications from these and other studies for the schoolroom handling of young children are apparent. We shall pay some attention to them later on.

SOME PERSONALITY DIFFICULTIES OF SCHOOL CHILDREN

From a mental-hygiene point of veiw, the goal of childhood, everybody would agree, is adequacy to meet and to deal sensibly with the crowding situations that make up the daily experience. The properly integrated juvenile—like the properly integrated grownup—is generally happy, possesses a good deal of confidence in himself, is free from worry and abnormal fears, in the main is successful in what he undertakes to do, feels secure in his group, and manifests in his behavior a degree of maturity commensurate with his age.

If we accept this description as the standard for the well-integrated juvenile personality, we shall need to inquire into some of the special reasons why some children fail to measure up to it in

[7] *Iowa studies in child welfare,* vol. 1 (Iowa City, Iowa: University of Iowa, 1934).

[8] M. L. Page, *Ibid.*
R. Updegraff and M. E. Keister, *Ibid.,* vol. 4 (1937).

their conduct and traits. In this section we shall turn our attention to a few of the determining conditions that underlie deficient or inadequate personalities in the child of school age.

1. Results of Overexpectation

First of all, many adults err in looking for adult standards and traits in children. They forget that the evolution of the personality is a slow and cumulative process and that before the child can be expected to arrive at accepted or conventional adult standards of conduct he will have to pass through a considerable number of intermediate stages in which behavior at a definitely lower level of acceptability will have to make its appearance and run its course.

Many parents and, unfortunately, some teachers are impatient with the erring and disquieting ways of children, and would if they could compel them to telescope all the slow and intermediate normal stages of evolution into an immediate, full, and final perfection. Obsessed with the idea, they exaggerate every minor misdeed or peccadillo; they denounce and scold and moralize *ad lib.;* they shiver and chide apprehensively at every recrudescence of infantile behavior; they set standards of conduct and deportment so high that the child fails miserably even to approximate them and becomes in consequence morose, discouraged, and miserable.

Any parent or teacher who censures more than he praises, condemns more than he commends, satirizes more than he excuses, should not be surprised to find his child growing daily in insecurity, bafflement, and misgiving. Out of these emotional roots are apt to spring unsocial and even delinquent behavior. Integration of the personality must be achieved, of course; but integration of the child personality demands that happiness, self-confidence, emotional control, success, and security be achieved on a juvenile level, amid the traffickings and the contacts of childhood. No adult judgment of the behavior or conduct of a child is valid that does not take into consideration his stage of maturity, and no adult handling and redirection of it is defensible that does not proceed from the proper comprehension of the normal and expected behavior level for the individual at the time.

2. The Problem of Dishonesty and Deceit

This point of view should help us in considering a second child-adjustment problem; namely, the honesty-deceit attitudes that characterize the moral development of the individual. A good deal

of light is thrown upon this problem by the extensive studies made some years ago by Hartshorne and May.[9] These investigators set up a large number of objective situations in which children's tendencies toward deception or honesty might be scrutinized. Striking among the conclusions reached was the discovery that children are not classifiable into the honest and the dishonest—the proverbial sheep and goats. As a matter of fact, not a single child out of the 265 school children studied was found to be honest in all situations. Even those who had been regular Sunday-school attendants were shown to be no more honest than those who had never attended. When the motivation to make a good record on the tests was strong enough, most children would cheat or deceive in order to secure a good rating. In general, the less likely a child was to solve a problem situation through natural aptitude or capability, the more likely he was to try for success dishonestly. The brighter children were, on the whole, more honest than the duller; those from homes occupying the lower income brackets were more honest than those from homes of a higher socio-economic status. They found no evidence that cheating in a classroom diminished with age, or that one sex was any less truthful than the other.

Honesty at the childhood level turns out, as these studies reveal, to be a relative condition. It varies with circumstances and with the personalities involved. The same child may be meticulously honest in one situation and utterly dishonest in another; he may be honest with his mother but dishonest with his teacher, or vice versa; honest with a storekeeper but dishonest with another child. There appears to be no *general* trait either of honesty or of dishonesty; the trait is specific, particular, and inconsistent. If lying will enable them to make better records, or to escape punishment, or if it will obtain for them something they could not otherwise get, most children will usually lie. In this, juvenile standards do not differ markedly from those of huge numbers of adults.

3. *The Problem of "Verbal Morality"*

Related to this matter is a third adjustment problem of childhood; namely, *verbal* morality, in contradistinction to *inner* morality. Every parent and every teacher has observed the glibness of verbal morality at six or seven years of age. Children have been preached to and warned and scolded over this and that wrong-

[9] H. Hartshorne and M. A. May, *Studies in the nature of character*: Vol. 1, *Studies in deceit* (New York: Macmillan, 1928).

doing; they have been bombarded with precept and with catechism, with rules and with "golden rules." In consequence, they are well stocked with a verbal brand of morality that flows easily from their lips. They know the conventional standards and the expectations of their adult mentors and guides; they know what is "wrong" and what is "right" in their eyes. They are vociferous in the denunciation of cheating and lying in their mates, while they themselves may be practicing both extensively. They can quote memory gems and golden texts and Bible passages and Athenian oaths that are bristling with socio-moral virtues, and at the same time they can be quite oblivious of their own personal departures from the virtues they extol.

Morality, in the larger sense, like honesty in the smaller, is a relative condition in childhood. The same child may be moral in one relationship and completely immoral in another; he may run the entire moral-unmoral gamut daily in his relationships with different individuals—juveniles and adults alike. Because his experience is limited, and because his ability to generalize abiding or valuable moral principles from these heterogeneous and isolated situations is slight, the ordinary child can hardly be expected to possess any very strong inner convictions about right or wrong, or to manifest any consistent tendency to behave virtuously. His teacher should not be surprised, therefore, if she finds him verbally moral to a disarming degree, but at the same time amazingly enigmatic on the expressive side of morality; or if she finds him facile and exemplary in agreeing with what adults deem to be right, but conducting his own life according to less-approved moral patterns.

4. The Problem of Status

A fourth adjustment problem centers around the establishment of status, or self-feeling, in the child. Everybody who aspires to mental health and good adjustment must possess an inner conviction of personal worth and self-respect. The experiences of early childhood either create or fail to create adequately this feeling of status and worth. By the time a child reaches school he has established his ego either firmly or shakily, depending upon the training and experience that have produced him.

A firmly established self-feeling generally results from a home setting in which a child has been encouraged to manipulate his environment purposefully and successfully, to develop increasing motor skills and neuromuscular achievements, to accept and work

toward achievable goals, and to develop within proper limits his own independent way of life. Inadequate self-feeling, on the other hand, is an evidence in the young school child of too-obtrusive parental controls, of too-restricted and inhibited areas of personal exploration and freedom, of too-impractical or unattainable standards of achievement or conduct. In the former circumstances, the evolving ego has plenty of stimulating opportunity to establish itself; in the latter, it is too completely circumscribed and repressed to undergo vigorous unfolding.

Basal to the evolution of status in a child is the awareness of being needed, of being useful, of belongingness. In the family circle where everybody, from the parents down to the smallest child, has his own contribution to make, his own felt and respected responsibility to fulfill, there will be no dearth of self-feeling and consciousness of worth. Children who are orphans, or who are unwanted and unloved, suffer woefully, of course, from the lack of this stabilizing trait. Security and belongingness, if achieved at all by such unfortunates, must be superimposed by extrafamilial experiences in the gang, the school, the church, and the community.

Frequently in his blind effort to find status, a child indulges in antisocial or delinquent conduct, thus deriving a pseudo-security that is a dangerous substitute for loyalty to a loving and adequate home. There is no substitute in the heart of a child for warm loyalty to a family circle of which he feels himself an integral and responsible part, and in which he experiences satisfying awareness of personal worth, importance, and essential belongingness.

5. *Introverted and Extroverted Personalities*

A fifth adjustment problem concerns itself with a child's position on the introversion-extroversion scale. Experimental findings indicate that while not always consistent in this regard, a child is likely to manifest a general trend toward either introversion or extroversion. The introverted individual tends to be oversensitive, self-conscious, moody, self-deprecating, resistant, averse to group participation, critical, and outspoken. The extrovert, on the contrary, is reliant and confident, complacent, tends to externalize his values, enjoys group and social intercourse.

Unquestionably these patterns of behavior are temperamental at root, and thus comprise a part of the constitutional make-up of the individual. The introvert gets his satisfactions out of inner feelings and subjective thought processes; the extrovert, out of action and

absorption in external reality. We do not yet know enough about the etiology of these mechanisms to predict to what degree the self-centered individual can be externalized, or the self-fleeing one can become sensitive and sympathetic. Since, however, even innate tendencies will yield in a measure to training and conditioning, it is certain that with intelligent handling the extremes at least of the introversion-extroversion patterns can be modified.

There seems to be no good reason why a child should become more and more self-centered, rather than less and less so, as he moves up through the school years and their shaping influence, or why he should flee more and more out of himself in his quest for external satisfactions.

The younger the child, the better chance his teachers have of helping him to strike some sort of reasonable balance between the two extremes of introverted-extroverted conduct and values. Much can certainly be done in the primary grades, probably less in the subsequent ones, to draw out the retiring, ingrowing personality and to assist it to find a measure of happiness in social contacts and participations. The teacher should spend an equal amount of her skill and ingenuity in teaching a child to extricate himself from his shell of oversensitiveness and critical aloofness, on the one hand, and, on the other, in teaching him to use his mind in the assimilation of language and number. So, too, with the too-strongly extroverted one: it is as essential that he learn to redirect some of his excessively outgoing energy into the building and ordering of a richer inner life of feeling and personal worth as it is for him to learn to think and judge in the field of the social sciences.

6. *The Problem of Total Reaction*

This suggests a sixth core problem of adjustment in the school-age child: that of harmonious and unitary development. The saying "the whole child goes to school," which was used in the opening paragraph of this chapter, is now so commonly heard as to be almost trite. Its profound truth, however, cannot be overlooked in the present discussion. Traditionally, society has tended to compartmentalize the child, charging his home with teaching him fundamental habits, the school with teaching him the three R's, the church with teaching him morals. But the child is a reacting *unit*, and the materials of learning absorbed in any given area spread out through every other area. Habits cannot be implanted apart from arithmetic and language, or arithmetic and language apart

from habits. Morals cannot be instilled in the Sunday-school child and not affect the family child and the schoolroom child as well.

Moreover, when a child is learning arithmetic, social science, or any other body of knowledge, he is likewise learning how to study, developing attitudes of tolerance or intolerance, interest or disinterest, cultivating feelings, emotions, and sentiments, building reactions of cooperativeness or uncooperativeness, enthusiasm or boredom, seriousness or casualness, perseverance or lackadaisicalness.

These "concomitants of learning" are inescapable. She is a poor teacher who fails to realize that every hour of the day and in every task entered upon, a child is being influenced and transformed in a score of ways besides the strictly and patently intellectual ones. "The whole child goes to school": the reading and number child, the socio-moral child, the feeling and emotion child, the habit and attitude and sentiment child. Every educative experience he encounters spreads out, like the circling waters set in motion by a dropped stone, and touches and influences every reacting potential of his being.

SOME DISTURBING SCHOOL IMPACTS UPON THE CHILD PERSONALITY

Unfortunately, the school, which by all odds ought to be an institution successful above most others in bringing assurance and a growing sense of power and adequacy to the child, sometimes fails signally to establish this end. Designed and operated as it is to pass on to childhood much of the achievement of the race, it too often makes the mistake of proceeding from an adult set of values and with an adult preconception of purpose and outcome. A learning objective and a learning process conducted entirely from the child's angle and from the juvenile set of values quite probably would depart radically from the traditional content and methodology of our schools.

At best, teachers are little more than tyros in fitting to the needs and the capacities and the enthusiasms of children the precious offerings and heritage they are charged to pass on to them. Consequently, instead of contributing positively to personality establishment and growth, schools and teachers sometimes act as negative influences that tend to jeopardize and to weaken the basal traits of an integrated personality.

1. The Boredom of Meaningless Goals

Prominent among the untoward influences of our schoolrooms is their saturation with meaningless and unchallenging and unstimulating goals. The curriculum is adult-made, adult-administered, and its outcomes are adult-evaluated. Teachers' aims and children's aims are frequently miles apart. Few experiences are more devastating to the personality than being compelled month after month and year after year to work at tasks that are without obvious personal significance to the performer. A frank and honest examination of the learning tasks that occupy the minds of the children almost any day in almost any grade will show any fair adult critic that many of them are foreign to the felt needs of the children and are accepted by them only because "that is school" and there is no escape.

Watch your curriculum in arithmetic, for example, or in composition, language, and art—or even in the social studies, nature study, and "health"—and note how thin and attenuated it is from the standpoint of challenging or even meeting acceptable juvenile objectives, and how bulky and unwieldy it is with the accouterments and trappings of adult improvisation. And then, when you chance upon a *real* objective that the children have accepted wholeheartedly, note the contrasting enthusiasms with which they throw themselves into its achieving. Mental attitudes of interest, of inquisitiveness and mental curiosity, of ambition and desire to reach a solution, of pleasurableness and persistence—these become at once apparent in every child; in tragic contrast with these are the attitudes of listlessness, casualness, boredom, and almost despair which children display when engaged in tasks that seem to them meaningless and unchallenging. Small wonder that their school experience leaves so many school children cold, and that such considerable numbers of them seek means of escape of one questionable sort or another.

2. The Bitterness of Mounting Failure

Another unfortunate schoolroom influence upon child personality is the disconcerting amount of failure that piles up for many an individual. Psychologists and mental hygienists lay much stress upon the therapeutic value of successful accomplishment. In our adult lives, we are well aware of the stimulus to further effort that is provided by a sense of accomplishment and by a knowledge that we

are winning through to our goal. If this relationship obtains with adults, we may be certain that it obtains still more among children, whose continuing efforts are gauged very definitely by their awareness of continuing successful achievement, or at least of reassuring progress. If a child is a constant loser at checkers, he shuns checkers; if his legs are short, he avoids competitive tag games; if his voice is "changing," he will not sing; if he cannot wrestle, he avoids a scrap.

Yet in our schoolrooms children are compelled daily to taste the bitterness of recurring failure. The slow child, in particular, suffers constant humiliation and defeat. Unable to carry on at the general class level, he can rarely if ever experience the satisfaction of ready and creditable performance. Slow in grasping and in perceiving meanings, bungling and inept in the use of his mind, more and more overage as the years pass, he maintains a hopeless position well to the rear of his brighter mates.

Without at least the occasional stimulation that comes from active and lively participation in the discussions and activities of the day, and without the satisfying awareness of status and personal security, such a child passes at best an unhappy and frustrated existence during the dragging hours of school. Uppermost in his mind may be a dogged impatience with learning, envy and jealousy of his peers, a growing hatred of school, teacher, and mates, and a hopeless marking of time until the attendance laws will allow him to drop out of school. When stirred by such emotions as these, the failing child is likely to busy himself with compensatory diversions that may bring him some measure of pseudo-security to take the barb from his daily school irritations and frustrations.

Through extravagant conduct on the playground, or through resort to the escape mechanisms of introversion, or through adventurings into asocial behavior and delinquency, the frustrated child attempts to find status and reassurance. The blue flower of happiness he, like all of us, must pluck. That is an imperative that drives every member of the race, from the cradle to the grave. Denied happiness through legitimate and approved channels, we seek to grasp it through other and less wholesome ones. The unsuccessful child in the school is fundamentally an unhappy child. A basal drive in his nature has been thwarted: it will not *remain* thwarted. Psychologists ascribe a large amount of the truancy, delinquency, and wayward conduct of school-age children to failure, disappoint-

ment, and frustration experienced in lieu of triumphant and satisfying achievement throughout the school years.

3. The Bogey of Marks and Grading

A third schoolroom influence that reacts unwholesomely upon the personality of the child is the disturbing bogey of marks, grading, and promotion that dogs his steps perennially and inexorably. In most of our schools, the course of study is sacrosanct, inviolable, and hoary with tradition—not to say anachronism. It is compulsorily the teacher's Bible and guiding star. To follow it to its end is mandatory upon every teacher; to learn it backwards and forwards and inside out is statutory for every child. To guarantee its inviolateness and to determine the perfection of its acquisition, tests and measuring scales and speed drills are administered daily, or nearly so; relative success and failure in the mastery of its various parts are publicized at frequent intervals by marks, and at longer intervals by promotion, demotion, or no motion.

Amid such immutable educational requirements as these, schoolroom living for every learner inevitably becomes marked by much nervous tension and emotional conflict. Feeling the importance of covering the course of study and of getting the dullest child through it in the allotted time, teachers build up a highly surcharged atmosphere around them. They tend to become insistent taskmasters, to resort on occasion to sarcasm and reproof, to chide, to scold, and to threaten.

The impact of such mechanisms upon the personalities of children is anything but salutary. Under them, they grow nervous and unhappy, and the learning process, instead of being a day-by-day individual adventure toward new horizons, exhibits an ever-recurring sameness of lock-step progression characterized at worst by the generation of fear, disgust, or escapism, and at best by the numbing experience of repetitive censure and chiding and blaming thrust upon young personalities that are already tense and apprehensive and insecure.

The teacher needs to be continually on her guard lest she add needlessly to the classroom tensions. The course of study she must accept as a necessary evil; measuring rods and promotional and evaluative techniques she cannot avoid. But she can do much in her administration of these devices to keep her children reasonably content and happy. Her personal serenity and good cheer will inspire confidence and security in children, and these are attributes that

all who serve boys and girls in the schoolrooms of the land should cultivate assiduously. Only as children are sustained by inner feelings of adequacy and of quiet confidence can they assay the tasks of the schoolroom with hope and effectiveness.

PERTINENT QUESTIONS FOR DISCUSSION

1. What is your opinion of the often-quoted adage: Let a child run until he is three, and you never can catch him? What concrete support can you offer for your opinion?
2. What do you believe to be the importance of conditioning in the establishing of a child's position on the ascendance-submission scale? Illustrate your belief by citing specific evidence.
3. Do you know any family in which the adult members are holding up and insisting upon standards of conduct and values for the juvenile members that are more adult than juvenile?
4. List several human situations in which an 8-year-old child might be expected to attempt to deceive his parents and his teacher.
5. What evidences or instances of "verbal" morality have you observed in your children? Can you account for the prevalence of this trait among young children?
6. Cite some case known to you in which a child appears to be failing to gain status and self-feeling, explaining what you suspect to be the basis for this unwholesome condition.
7. Contrast in two parallel columns the more striking and characteristic behavior patterns of two children in your room, one of whom manifests strongly introverted tendencies, the other of whom is definitely extroverted.
8. List some "concomitants of learning" which the children of your room are achieving beyond the acquisition of schoolroom knowledge and skills.
9. Try to put yourself sympathetically in the place of your children as you proceed honestly and fairly to evaluate the appealingness of the goals set them in some specific curricular subjects; e.g., arithmetic.
10. Pay special attention for the next few days to a child who is experiencing failure more than success in his schoolroom efforts. Try to analyze the situation, and suggest changes that might improve it. What results accrue?
11. Are you cognizant of any appreciable amount of nervous tension and apprehensiveness among your children? If so, what factors seem to be accountable? Can they be controlled or altered? Explain.

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CHAPTER 2

THE EMOTIONS OF THE SCHOOL CHILD

Some Children To Identify in Your Room

A child who . . .

(1) is inclined to be overemotional; one who controls his emotions well;
(2) shows unusual fear; one who is bold and fearless;
(3) is the victim of a conditioned fear;
(4) has a real phobia;
(5) angers quickly; one slow to anger;
(6) is given to temper outbursts or tantrums;
(7) manifests strong inner upheaval at the moment;
(8) displays jealousy; one who admires rather than envies;
(9) is momentarily happy; a child who is frequently unhappy;
(10) is sympathetic toward other children; one lacking in sympathy;
(11) shows overfondness for his teacher;
(12) is emotionally indifferent to his teacher;
(13) is devoted to a chum; one who does no chumming;
(14) is emotionally indifferent to other children.

GENERAL ORIENTATION

The great emotions, potent at every age of the individual, play tremendously strong roles throughout childhood. They find overt expression readily, most children acquiring only slowly the ability to conceal or to repress them. Accompanied by profound inner stirrings of the whole organism, they liberate in the body much motivational energy that drives the individual to adjustive action.

In general, emotions fall into two chief classes; first, those we shall describe in this chapter as the *exciting emotions,* comprising fear, rage, and jealousy; and second, those defined as the *releasing emotions,* including pleasure, sympathy, and love. The exciting emotions create a pent-up, strongly irritating inner condition; the releasing ones, a more relaxing, pleasurable state. Contrarily, sometimes the former may bring pleasure to their host, while the latter may bring discomfort and irritation. Basal to all emotion, whether of the exciting or of the releasing type, is the obvious inner turmoil

that spreads throughout the entire visceral and organic system whenever strong feeling is experienced. To understand the significance of emotion and to train the child in its reasonable and proper control become major problems for every classroom teacher.

CONTRIBUTION OF EMOTION TO OUR LIVES

On the broad stage of human action the emotions play in every generation a stellar role, beside which the parts played by mind and intelligence are quite minor.

On the negative side, the emotions of men inflame them to hatreds, to wars and conquests, to murder and intrigue and incest, to cruelty and oppression. Emotions blanch men's faces with terror, throw them cowering to the ground in craven fear, obsess their minds with dread and superstition and foreboding, coerce them to beat down their fellows, to rob and oppress them, to undersell or outsmart or intimidate them.

On the positive side, emotions embolden us to denounce evil in the world, to fight for the decent and the right, to seek actively and hopefully for the good life. They shoe our feet with caution and prudence; they open our hearts to the needs and sufferings of others; they warm us with the deepest and the tenderest feelings for family and friends; they inspire us with awe and reverence before the manifestations and the intimate experiences of God. From the earliest days of infancy to the closing scenes of the longest life, they exert a most profound influence over human behavior.

THEORIES OF EMOTION DO NOT CONCERN US HERE

There is no place here for theorizing about the origin and structure of emotional experience. If you are not familiar with the James-Lange explanation, which deems emotion to be a conscious state resulting from sensory experiences that affect the visceral and glandular systems, and with the Cannon viewpoint, which regards emotion as the resultant of neural activity in the thalamus, you should study both these notable theories. In the present volume, however, we are concerned exclusively with the obvious facts of behavior rather than with its theoretical explanations, and we shall therefore not greatly concern ourselves at any point with theories and hypotheses.

Whether one accepts the James-Lange theory of emotion, or the

Cannon theory, or whether one adopts some other hypothesis, such as, for example, the McDougall instinct theory, or the Freudian concept of the libido, one finds no difficulty in accepting the common ground from which every theory of emotion must spring; namely, the obvious fact that emotion entails a profoundly stirred-up condition of the organism, which manifests itself in a variety of characteristic forms of overt and inert expression. The involvement of the autonomic nervous system, which is aroused in every emotional reaction, leads necessarily and immediately to a wide discharge of impulses into the entire mechanism.

CHILD BEHAVIOR DICTATED LARGELY BY EMOTION

Before it assumes its dominant role in the lives of adults, emotion builds up its part by exerting a strong influence over the behavior and the conduct of children. Indeed, since the child lacks the maturity and the judgment of the grownup to direct and to control his reactions on an intellectual level, his behavior is often dictated by the caprice and the stress of the momentary emotional pattern.

Child life, as we observe it on every hand, is literally tinged with emotion and strong feeling. You have but to watch and listen to the reactions of any juvenile individual or group on the playground, or in the somewhat less casual atmosphere of home or school environment, to be convinced of the strength and the omnipresence of childhood emotions. Children rebound perpetually from one extreme of emotion to another. At some time during the twenty-four hours of any day, a child may be found to flush with quick anger, to strike out in consuming rage, to cringe with fear or timidity, to sulk in wounded pride, to "grow green with envy" or be piqued with jealousy, to jeer with malice or derision, to shout with delight, to laugh with happiness, to explode with mischief, to weep with mortification, to strut with exultation, and so on through the whole gamut of emotional display.

OVERT FORMS OF EMOTIONAL EXPRESSION

In childhood the overt expressions of emotion tend to be striking and arresting—infinitely more so than in the case of adults. The latter have learned to cover up and to dissemble, so that it is often impossible to identify the momentary emotional state in our friends or associates. Children, on the other hand, traditionally wear their

hearts on their sleeves for any and all to see. Rage, fear, jealousy, delight—these all write their characteristic and telltale language across the features and the muscles of a child so that he who runs can read the narrative.

The overt expressions of emotion include clenching fists, flushed or sullen face, loud and threatening voice, trembling, striking out blindly, shrinking, recourse to ready tears, pushing and kicking. In this respect the young child when emotionally aroused is primitive and savage, resorting characteristically to the tactics of the jungle and the hut. The degree of his control and concealment of his inner turmoil is a rough measure of an individual's stage of maturation. At the childhood stage, while there are wide individual differences, one does not expect to find very skillful concealment and control.

CHANGE IN OVERT EXPRESSION WITH INCREASING MATURATION

An observable change that emotional expression undergoes with increasing maturation is the reduction of aimless, uncoordinated, "all-over" behavior and the slow replacing of it by purposeful, well-aimed behavior, calculated to solve the disturbing situation.

This refinement in the emotional adjustment may be well illustrated in the case of anger or rage in the young infant. Lois, six months of age, and lolling in her mother's arms, became suddenly fascinated by her mother's eyeglasses and attempted to grasp them. Restrained, she struggled and screamed, kicking her feet up and down and writhing like a contortionist. Still kept at arm's length from the desired glasses, Lois continued for some minutes to squirm and sputter petulantly. Such random and diffuse activity as this obviously gets nowhere and results only in rage and frustration. Contrast with this aimless muscular contortionism the coordinated and directly purposeful behavior of an angry boy of seven who strikes his playmate, with whom he is at the moment out of sorts, trips him up, or otherwise concentrates his muscular efforts with good effect upon the provoking or arousing situation or agent.

At a still later stage of maturation, emotions pass under a more positive inner control that may actually inhibit all or most overt expression. When this time comes, they are likely to run their course largely in concealed resentments, stifled vocalizings, flashing bitterness of spirit, inner quakings, and the like, while outwardly a most misleading calm and poise may be maintained. Punitive acts, re-

taliatory measures, "revenge," instead of being immediately carried out, may be delayed for hours or days, or they may be actually abandoned in the interest of policy or discretion. These postponements and modifications represent, however, tolerably mature stages of emotional evolution, and one looks for them only incidentally in children. In the main, we expect children to display a good deal of primitive emotion, unpolished and untempered by the veneer and culture of civilization. Teachers must therefore realize the primitive structure of child emotions and not be surprised or disconcerted when they express themselves, as they occasionally will, in naked and ugly forms that suggest the jungle rather than polite society. We shall return subsequently to a further consideration of this matter.

EXCITING EMOTIONS AND RELEASING EMOTIONS

In the meantime, it will be profitable, before we come to nearer grips with the problems centering in the emotions of the school child, to consider the two contrasting extremes of emotional expression. We shall identify them simply as (1) the exciting emotions, and (2) the releasing emotions. The former are so designated because in the main when an individual is dominated by one of them, he feels tremendously aroused and alerted. There is a pent-up storage of available motor and ideational energy that strains for expression, and until expression is achieved the individual is highly uncomfortable and hyperkinetic. He may feel confined and imprisoned within himself almost to the point of suffocation. The outward flow of energy that shortly takes place brings personal and organic relief, usually without the achievement of any altruistic objective. In this sense, the exciting emotions are on the whole selfish, narrow, and personal in reference, although we shall discover later that in a cultivated form they may result in bringing aid and comfort to others.

The releasing emotions, at the other pole of affective reaction, are so called because, when they occupy the saddle, while the individual may sometimes be quite as aroused and alerted as when dominated by the exciting emotions, they tend to be less irritating and explosive. Indeed, when subject to them, one may feel relaxed and comfortable, and the flow of energy outward is far less likely to be torrential and cataclysmic. The relief experienced when the releasing emotions are given expression leaves one less spent and

demoralized. Frequently they yield satisfaction through their interplay with the emotional expressions of other individuals, and they therefore tend to have an extra-personal reference that is less usual in the case of the exciting emotions.

The emotions we shall consider in this chapter are classifiable as follows:

THE PRINCIPAL EXCITING EMOTIONS	THE PRINCIPAL RELEASING EMOTIONS
1. Fear	1. Joy
2. Anger, or rage	2. Sympathy
3. Jealousy, or envy	3. Love

These particular emotions are selected for study here not only because they represent the principal human emotions, but because they play highly significant roles in the life and conduct of children.

FEAR: A DEVASTATING EMOTION

Everybody is familiar, both through personal inner experience and through the observation of others, with the bodily manifestations of fear. The blanched face, the pounding heart, the dry throat and lips, the stuttering speech, the prickly skin, the "heart-in-the mouth" sensation, the trembling muscles—these are prominent manifestations of fear. They reach down into the deepest visceral and organic reservoirs of our being and reflect something of the turmoil within us when we are caught in the grip of fear.

Unquestionably the most devastating thing about fear, at least from the standpoint of the mental health of the fearing individual, is the fact that it destroys his self-confidence. It is impossible for anybody who experiences this emotion excessively to retain much faith in himself. The very fact that he stands in terror of something serves poignantly to throw his helplessness into sharp and disconcerting relief. Through all terror, from that of the primitive jungle man at the roll of thunder and the flash of lightning across the horizon, to that of the child who has been conditioned to fear the dark, there runs the same thread of helplessness and impotence. Awareness that one cannot assert oneself and seize control of the forces that surround and frighten one is ordinarily the precursor of feelings of inadequacy, futility, and crumbling faith in oneself. When self-confidence crashes there is no fight left in the individual and he gives himself over to stark rumination over the dangers that beset him.

COMMON SOURCES OF CHILDHOOD FEARS

Fears that commonly become fixed in childhood arise from many experiences and situations. It is the relatively rare child who arrives at school age unharassed by one or more depleting fears. Most early fears come about through a subtle process of conditioning, and they may originate in the first months of life. Psychologists have largely rejected the older supposition that fear is instinctive and incline to the opinion that most fears are learned from parents, relatives, mates, or from chance contacts with people, events, and things.

Unfortunately, children are definitely and often purposefully taught fears of one sort or another. Warned that he will be put in a dark closet if he persists in his naughtiness, a child reasons that darkness must be fearsome, and hence he learns to be afraid of it. Cautioned against fraternizing with strangers, or against playing with strange dogs, he infers that people and animals alike are ever-present sources of harm or danger to him. Observing that his mother or his grandmother or his aunt, or somebody else, sits shivering in terror during electrical storms, he concludes that thunder and lightning are things to be feared. Plagued by older children who dangle squirming snakes in front of his nose, or who jump out at him suddenly from the shadows, or who drag him out where the water is deep, he develops morbid fears of reptiles, shadows, and water. Plied with exciting ghost stories and jittery from the impact of adult or juvenile rehearsals of experiences in the hospital, the dentist's chair, or the doctor's office, he imbibes an unreasonable fear of doctors, dentists, and hospitals. Threatened with the bogeyman, with being put in the ragman's bag, with being given to the gypsies, with being taken by the policeman or the "doctor man," and the like, he grows needlessly fearful of all manner of things—and all in the name of disciplinary efforts by incompetent and harassed parents who know no other way than intimidation to make their offspring "behave."

Thus, it appears that many of the fears of children are instilled by the child's everyday associations with those about him. Parental threats and warnings; the lurid tales of nursemaids; the imitative example of adults—these, coupled with the accidental contacts he makes with unfortunate occurrences in the general environment, suffice to create in many a child a whole galaxy of fears that often persist tenaciously throughout childhood, and even into adolescence and adulthood.

HOW EMOTIONAL CONDITIONING COMES ABOUT

Since most of these fears are conditioned, it will be well for us to pause for a moment to inquire into the nature and mechanism of emotional conditioning. This kind of conditioning is as inevitable as organic or physiological conditioning, and follows the same pattern. The child need only experience, along with an adequate stimulus to fear, an originally inadequate one. Subsequently, the appearance of the inadequate stimulus will set off the emotional response originally connected only with the adequate one. Thus:

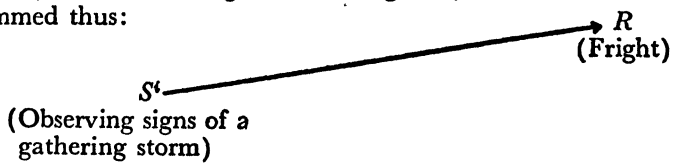
Let us suppose that a four-year-old is watching through the window the play of lightning as a storm gathers. On his face only curiosity and keen interest in the gathering dusk and the rumbling thunder and the playing lightning are registered. There is no sign of fear. Suddenly there is an unusually loud clap of thunder, followed by a shriek of fright from the tense lips of a nervous mother, or grandmother, or aunt, or anybody else in the room who chances to be afraid of thunder. The mischief has been done! The child has been conditioned to fear electrical storms. Thereafter whenever the skies darken and a storm gathers, he will be afraid, whether or not his frightened adult mentor is present and shrieking.

We may diagram what has occurred thus:

S^a — — — — — — — — — — → R
(Observing fright in the demeanor of somebody else) (Fright)

S^i — — — — — — — — — — → R
(Observing signs of a gathering storm) (Curiosity)

After the child has associated the two stimuli (fright on an adult face and signs of a gathering storm outside) in this single intense episode, he will tend henceforth to connect the S^i (inadequate stimulus), regardless of whether or not it is again reinforced by the S^a (adequate stimulus), with the response of fright rather than of curiosity. The resulting conditioning may thenceforth be diagrammed thus:



Upon this skeleton most of the fears that get started in childhood are fashioned. In the long list of such conditioned fears belong fear of fire, of darkness, of cats and dogs, of rats and mice, of snakes and caterpillars and toads, of ragmen and policemen, of ghosts and witches and cemeteries, of high places and open places and closed places, and of most of the other bogeys that hound the footsteps of boys and girls, and, later on, of men and women. To the more morbid and persisting fears thus established psychologists commonly apply the term *phobias*.

From one study,[1] in which parents were asked to record the things that aroused fear in their children, it was indicated that younger children were commonly afraid of noises and events associated with noises originally; strange or unfamiliar people, places, or situations; falling objects; toppling; sudden or unexpected movement; anticipation of bodily harm or pain; and animals.

By school age, and during the middle and later years of childhood, new fear stimuli were recorded by parents as follow: ghosts and supernatural manifestations; mysterious events; skeletons, corpses, and death; and darkness. Six-year-olds often feared abandonment by their parents; kidnaping; imaginary creatures of tale and story; queer people; and disturbing dreams. In general, there comes about during the early years a change from concrete, legitimate fear stimuli to imagined or ideational stimuli. Few children who confessed to fear of animals, for example,[2] had ever had any actual injury from or fright occasioned by the animals feared.

LEGITIMATE FEARS

Fear, of course, when temperate and rational, is a right and proper experience of every child. Only when it becomes morbid, or when it adds needlessly to the strain of living, does it cease to be a virtue. In its proper place, fear is a wholesome deterrent. It makes for caution and prudence in the face of obvious or potential danger; it guards against such common and perpetual hazards as traffic and street accidents, shaky or unsafe conveyances and gadgets, fire, thin ice, fallen wires, broken glass, infectious or contagious diseases, and the innumerable other sources of potential danger that lurk con-

[1] A. T. Jersild and F. B. Holmes, "Some factors in the development of children's fears," *Journal of experimental education*, 4 (1935), 133–41.

[2] A. T. Jersild, F. V. Markey, and C. L. Jersild, "Children's fears, dreams, wishes, daydreams, likes, dislikes, pleasant and unpleasant memories," *Child development monographs*, no. 12 (1933).

stantly in the surrounding environment. Moreover, fear is a legitimate deterrent against moral risks, antisocial and delinquent behavior, "sowing of wild oats," flouting of the law, and otherwise ignoring or defying convention and prudence.

WHOLESOME EFFECTS OF TECHNOLOGY AND AN ORDERED UNIVERSE

It must be admitted that, compared with the influence it has exerted in previous generations of childhood, the role of fear today is a rather subordinate one. Emerging from its primitive status of ignorance and superstition, the human race has, in the course of its long evolution, substituted knowledge and understanding for ignorance and craven fear of the forces in its environment. Supernatural manifestations, which so commonly struck terror to the heart of the caveman, have found rational status in the scheme of an ordered universe, and one no longer cowers before them. Science and technology in the strictly modern age have operated to give man power and dominion over gigantic forces that once mystified and baffled him. With wisdom and understanding have come confidence and boldness, so that the modern child has a patrimony of daring and venturesomeness rather than one of uncertainty, wonder, and caution.

AN IRREPARABLE LOSS

Besides this transformation in the attitude of men toward the universe, as they have come to understand it better, there has arisen a parallel accent upon individual freedom, self-expression, and self-sufficiency in our culture, so that the mores into which the mid-twentieth-century child is born tend to emphasize boldness and perhaps overconfidence in human resourcefulness and capacities. It is a significant fact that so long as men lived in fear of their environment they exercised caution and self-control in manipulating it. One would hardly be inclined to argue for the return of cosmic fears; yet it cannot be denied that a race that stood in wholesome awe of the universe and the Deity that subtended it taught its children to fear God and the manifestations of his power and sublimity. With this teaching now largely superseded by a new preachment of man's powers and his potentials based upon scientific analysis and control of his universe, unquestionably something sobering

and restraining has been lost from human character and human motivation.

CONTROL OF FEAR IN CHILDREN

Even though fear of the physical universe has largely disappeared from the inheritance of the race, plenty of other needless fears remain, as we have seen, to sap and to dissipate the nervous energy of the child. Since most of these fears were conditioned through the unfortunate juxtaposition of neutral or inadequate stimuli with positive or adequate ones, obviously the control of them is to be found largely in guarding the children against unwise conditioning.

To a certain extent, of course, the experiences of children cannot be so manipulated that no conditioned fears will be built up. There is always the possibility—even the likelihood—that a child will stumble upon conditioning experiences, such as, for example, being frightened by the dark, or by animals, or by accidents or injuries. When we have made allowance for the inevitable toll that such unavoidable chance associations take from the equanimity and the confidence of boys and girls, we still have left over the utterly needless devastation wrought in their personalities by the stupid and vicious impact of adult conjurings and threats to which they are innocently subjected.

The first rule for the control and elimination of children's fear is the very obvious and sensible one that their adult mentors and guardians shall be meticulous in the avoidance of fears and threats in handling and training them.

If you will make note of the threats and warnings and other invocations of fear in some form or other to which adults who have children in their care resort daily and hourly in their ill-advised, trial-and-error efforts to enforce discipline, you will probably draw the conclusion that most children, if they have the good fortune eventually to grow up unplagued by carping fears and apprehensions, will have done so not so much because of the impact of adult methodology and pedagogics as in spite of it!

VERBAL APPEAL USUALLY FUTILE

Control of fear, then, becomes, also in considerable measure, a problem of undoing the mischief after the victim has developed fear. Parents have proverbially used the time-honored but otherwise

dubious method of attempting to talk the child out of his fear. "Talk is cheap," and it probably yields very little profit when so employed. The victim of fear can often accept intellectually the fact that his fear is silly and groundless, without being able to divest himself of it. Moreover, parents who make use of this method of verbal appeal to eliminate fear often make matters worse by tinging their appeal with a good dash of emotion also.

Scolding and sarcasm, coupled with a superior and patronizing omniscience on the part of the sophisticated adult, can hardly be expected to reassure a frightened child and to dispel his presentiments and apprehensions over the lugubrious darkness or the rumbling thunder or the flashing lightning. Verbal appeal has its place in the uprooting of fears in a child, but if its purpose is to "talk him out of" his fright, it will rarely accomplish its end. Calm, rational, and sympathetic adult interpretation of the arousing phenomenon, if patiently and understandingly carried through, will often prove extremely helpful to the troubled and apprehensive child.

Adult mentors can also do much to dispel juvenile fears and worries by themselves setting an invariable example of self-control and self-assurance in the face of disturbing or distressing events. Let a grownup display jittery and nervous reactions during a thunderstorm, or at the scene of an accident, or in the presence of suffering, or at the beach or the zoo, and his observant, ever-copying child cannot but be infected with some of the emotional virus thus liberated. Anything, in other words, in the adult demeanor or behavior that suggests insecurity or helplessness and inadequacy finds reflection in the emotions of juvenile imitators. Basally, as we have seen, fear is an essential by-product of insecurity and whatever threatens one's security, whether he be child or adult, arouses his fear.

In a larger sense, therefore, the best possible corrective of fear in a child is a day-by-day experience of success and adequacy in every possible area of activity. If he is tasting failure and inadequacy at home, at school, or among his mates, a child is almost certain to develop worries and fears that will still further handicap him. By the same token, whatever a teacher or a parent can do to equip him with the necessary skill and mastery to enable him to project himself adequately and successfully upon the environment will have the result of dispelling a child's fears and replacing them with self-assurance and self-confidence. Fear is often an indication of faulty

equipment and of inability to use the potentials and resources that one actually has, at least in embryo.

Of two additional methods of controlling fear frequently applied by parents—punishment and disuse—not much of a favorable nature can be said. The former consists of actual reprisals of one sort or another for the "silly" fears of a child. Punishing a child because he is afraid in the dark, for example, by shaking or spanking him, or by thrusting him bodily into a dark closet, is far more likely to increase his trepidation that it is to diminish it. Disuse, as a catharsis of fear, while it may ease the situation at the moment, will not help much in the long run. By keeping a child away from the dark—for example, by leaving the light on when he goes to bed until after he has fallen asleep—does not add to his fear of the dark, it is true; neither does it fortify him with courage to encounter it with greater assurance later on. Disuse, therefore, constitutes rather passive resistance than an active attack upon the enemy, and as such can be only mildly recommended. It can be justified sometimes on the grounds of its being a helpful device in keeping the victim away from a feared stimulus while he is being fortified by precept, example, and reconditioning, and by ever-increasing maturation, to face it more calmly and sensibly.

A further word about *reconditioning*. Suppose a small child has been thrown down by the family dog while playing with it, and runs screaming to his mother. Unless the emotional shock experienced by this chance fear-arousing situation can be eased, the likelihood is that a permanent fear of dogs will result. The incident itself, though very vivid when it occurs, will shortly be forgotten, and only a fear will remain that will seem senseless and baffling to all concerned. It is therefore important for the child to be unconditioned; that is to say, that the conditioned fear of the dog be uprooted promptly and the original liking for the dog re-established.

This reconditioning process cannot be ignored nor neglected. Set about intelligently, it can usually be accomplished in a short time. All that is necessary is to introduce the dog persistently before the child at times when he is intensely interested in something else, e.g., in eating his lunch. If at first the animal is seen only through a door in the adjoining room, and at subsequent mealtimes is brought gradually nearer and nearer, the child will shortly come to the point where he can stroke the dog's head with one hand while eating with the other. From this triumph, it is but a step back to the former romping and cavorting with the dog.

The conditioning will have been changed thus:

The Original Conditioning

S^a (Being thrown down by dog) ——→ R (Fear of dog)
S^i (Presence of dog) - - - - - - → R (Interest, pleasure)

The Reconditioning

S^a (Food) - - - - - - - - - → R (Interest, pleasure)

S^i (Presence of dog) - - - - - → R (Fear)

Henceforth, because the feared dog has been associated with the pleasurableness of eating his lunch, the child will react with increasing reassurance and pleasurableness whenever the dog is in evidence. This simple technique has accomplished what no amount of punishment, disuse, or verbal appeal could possibly have done.

SPECIAL SCHOOL SOURCES OF FEAR

Foremost among the sources of fear contributed to children by the school experience itself are the attitude and personality of teachers. Too many teachers are irritable and crotchety, and they tend with their sarcasm and brusequeness to frighten those children who chance to be particularly timid and easily abashed. Too many of them have journeyed far—spiritually as well as physically—from the days of youth, and have grown unsympathetic with children and their limitations and immaturities. Too many of them, obsessed with the all-importance of courses of study, have become little better than taskmasters, driving their none-too-willing slaves daily to perform tasks for which they are unready, or to which they feel no absorbing commitment. Too many of them seek to accomplish their aims through threats and scoldings and denunciations that cow and intimidate. The net results of all these unfortunate conditions and techniques upon children is a crop of perpetual fears and misgivings that keep juvenile morale at a low ebb and juvenile emotion at best negative, inhibiting, and cast in a mold of fear.

Equally disastrous to positive and invigorating emotional experience in the school is the specter of failure that looms frighteningly in the offing. Success is, as we have seen, indispensable to happiness

and continuing effort. When a child anticipates, instead, defeat and failure, he cannot be expected to become other than fearful and apprehensive. When the task set is too difficult, when the emphasis on every hand is placed upon speed and tests and grades, when because of inadequacy of his own personality or capacity a child finds himself drifting downstream instead of swimming actively and zestfully upstream with the crowd, we must expect in him an overall reaction of fear and foreboding that will still further retard his progress and turn him emotionally away from the things he is expected to achieve. If we could accurately gauge the amount of apprehension generated in children in the course of an ordinary day's experience in the school, we should probably rebel in consternation at the emotional liabilities of much of our bungling and inept pedagogy.

ANGER AND RAGE

The second of the three exciting emotions to be considered in the present chapter is rage. In both its inert and its overt manifestations, this emotion—like fear—has its characteristic symptoms that nobody can mistake. The flushed face, the glittering eye, the outpouring verbalism, the clenched fist, the striking out, the tense musculature—these all testify to the presence of the rage phenomenon in the subject. Deep within his internal structure, there is a profound irritation, resulting from released adrenalin and sugar, that drives him pell-mell to explosive and often devastating conduct. Once given free play, there is almost no limit to which wrath will goad him. Judgment and regard for consequences may be for the time being suspended, and the subject may revert to a primitive exhibition of crass fury that is akin rather to savagery than to culture and civilization. Tokens of this aboriginal exhibition of raw emotion are to be seen in mass lynchings and in the hysteria that excites mobs and gangs to destructive action.

In the individual, there is an interesting evolution of the rage emotion as the years pass. In infancy, the expression of it is immediate, unrestrained, and consuming. The entire organism erupts in frenzy whenever there is frustration of the will. The child's body is contorted, blood suffuses his face, he screams and strikes out in blind fury at whomsoever and whatsoever obstructs his plans. In extreme manifestations, his face may grow purple and he may writhe and twist and struggle until he is breathless and gasping.

MATURATIONAL CHANGES

As maturation occurs, there comes about a definite modification in this all-or-none reaction to rage. In the course of widening social experience the child learns to conceal much of his emotion, so that others will be unaware of what is happening within him. This "covering up" of the anger reaction reaches its acme in maturer years, of course, when one can smile indulgently while raging within and speak calmly and ingratiatingly while burning with anger at the very person to whom one speaks. Even children of school age, however, have a good bit of skill in concealing their true emotions when irritated by the plaguing of mates or by the carping and scolding of teachers.

A striking fact is that, in childhood, while anger is readily aroused and finds immediate overt expression, it tends to evaporate as quickly. There may be a momentary flare-up when a boy is teased by his chum, or when he is belittled or scorned or laughed at, or when he is slighted or suppressed or frustrated; like a sudden summer squall, however, the turmoil is soon over and harmony and good fellowship are re-established in a surprisingly short time. Fists may fly and cutting words may be flung in all directions, but notwithstanding this, the sun rarely goes down on childhood wrath. Children, of course, differ widely in their susceptibility, some being extremely good-humored and hard to arouse, while others are irascible and become quickly inflamed.

In this connection, the so-called "temper tantrum" of infancy and early childhood is an interesting phenomenon. With proper handling, a child given to these displays should have largely outgrown them by the time he is old enough for the primary grades. Unfortunately, however, wise handling is frequently lacking, and as a result one encounters an occasional temper tantrum even in school-age children.

In general, temper tantrums are staged by little children as an easy and ready means to the ends desired. The tantrum becomes a sort of legal tender—coin of the childhood realm—for the purchase of indulgences that a parent has not the endurance or the resoluteness to withhold. Finding that an all-out tantrum worked once in wearing down parental resistance, a child does not have to be overclever to conclude that it might work again. So, if he desires a favor, or some other consideration, he learns to wrest it from his adult mentors by the fury of the tantrum he trots forth. Only if and

when his potential audience and boon-granters are withdrawn, and he is left to sob and simmer alone, will be ordinarily recover himself and give over his efforts. Granted the satisfaction of an audience, coupled with a plainly discernible readiness to capitulate on the face of his mother or some other individual in control, the young tantrum-thrower will not only perform characteristically at the moment, but he will be confirmed in his wilfulness at each display until shortly he becomes a steady dispenser of the coinage of tantrums.

This unfortunate tendency sometimes reveals itself in the school-age child, who knows no other coinage with which to buy his desires and his indulgences. Such displays are not entirely unknown in adult individuals, who resort, if not to kicking and screaming, at least to sulking and sullenness as a means of coercing other members of the family to their desires or whims.

INCITING CAUSES OF ANGER

There are many situations that commonly incite people to anger. Basally, however, they all have a common denominator: frustration. From the infant who flies into a passion when refused a toy he happens to fancy at the moment, to the industrial magnate who is inflamed at the low output of his plant, it is basally an acute awareness of benefits or objectives denied that sets off the anger response. Specifically, anger-provoking situations in childhood include the following, among many others, of course: losing out or falling behind in competitive games or tasks; interference with freedom and self-determination; curtailment or forbidding of activities in which one is momentarily engaged; plaguing, bullying, or pain inflicted in personal encounters; overfatigue and overstimulation; thwarted plans; unsolicited and officious directions, and the like. Not infrequently several of these frustrating agents may combine to build up emotional pressure in the child, until he eventually "blows up" from the accumulated irritations and interdictions. Sometimes, too, epithets that cling, name calling, disparaging reference to one's physiognomy, or to one's siblings or parents, will elicit the rage response in the victim of these personal or vicarious indignities.

More so than fear, anger very often eventuates in many subterranean forms of expression. It may seethe in resentments and bitternesses; it may goad the aggrieved individual to plot vengeance against his real or fancied aggressor; it may smolder in aversions and

hatreds; it may be transferred from the original exciting cause to explosive behavior in some vicarious or substituted situation; it may spread from a detested person to the thing, cause, or principle he represents or with which he is identified. Thus, rage is by no means a simple, direct motivator of simple and direct action. Its ramifications within the personality are likely to be insidious and labyrinthine.

POSITIVE CONTRIBUTIONS OF ANGER

Still, the anger emotion cannot be said to be primarily or exclusively destructive. When eventuating in rash and spur-of-the-minute explosion, or when directed thoughtlessly or recriminatively, it usually is negative, of course. But when it supplies the energy and motive that impel us to throw off the bonds of restraint or inhibition that fetter us and keep us in the old ruts, anger may be a decidedly positive and constructive force. Or when we are driven by it to turn against evil in ourselves, or to fight wrong that we discern in society, politics, economics, and the like, it becomes a most potent ally of whatever is good in human nature. Through the strength and determination released by anger in us, we are led to denounce injustice; to pit our weight against oppression, greed, and selfishness; to work for the elimination of graft, exploitation, cruelty, ignorance, disease, privation, underprivilege; and to set in motion reform movements that may be calculated to better the lot of ourselves and of our fellows. Righteous anger, like prudent fear, becomes thus an asset; only hasty and ill-directed anger is a liability.

CONTROL OF ANGER

How then shall anger and rage be brought under proper direction and control in the child, to the end that their negative aspects may be avoided? In general, needless frustration must be prevented in the day-by-day activities of the child. Tasks patently beyond his abilities or strength to perform must not be imposed, unless one is willing to risk the certainty of failure and the resultant resentment and anger that will logically ensue. When the supervising adult is sure that the expected conduct and achievement are well within the range of a child's potentials, he may safely insist upon a course of action. Even then, many a parent and many a teacher make the mistake of exercising too much supervision over child performance

and of needlessly interfering through superfluous suggestions, annoying check-ups, frequent nagging and criticizing, and the imposition of a disconcerting show of authority.

It need hardly be added that the first exploratory display of temper tantrums in a child should result in unquestioned failure to achieve the end sought. If such efforts recur, withdrawal from an audience into isolation should be the invariable penalty. Yielding or half yielding and the display of wavering uncertainty on the part of the parent when the tantrum threatens may be disastrous. Young children are quick to interpret the behavior of their elders and are prone to make easy capital of their indulgence if the chance appears at all promising.

SPECIAL SCHOOLROOM CAUSES OF ANGER

Just as there is danger that school experiences may foster the development of fear and apprehension, so it is not unusual to find them aggravating the anger emotion. In a good many children there exists, beneath their none-too-well-masked exterior, a real aversion, not to say resentment, toward school. To some degree, this attitude springs from overdone parental effusions about school and what it will accomplish for the child if he is tractable and eager to learn. To some extent, it arises from the confinement and the inhibitions and restrictions that school membership imposes, in contrast to the gala and enticing possibilities of truancy. To some extent, also, it is the logical result of the reprimands and the rebukings that children experience from teachers and principals and supervisors. Sometimes it springs from no specific or demonstrable provocation, but exists rather as a vague rebellion against the dependence and the prolonged marking of time until one is old enough to escape into the fascinating outside world of jobs and of earned money and the allurements of self-regulation.

Most important of all, however, so far as the school experience tends to foster this emotion, is probably the eloquent but unvoiced bitterness children know who find themselves continuously on the intellectual defensive in a forward march across educational terrain for which they feel incompetent and inadequate. Facts, principles, processes, which they are supposed to have absorbed yesterday and which, they are satirically admonished, they need to recall in order to comprehend today's terrain, they have either forgotten completely or else have retained only in small part. Consequently, they

gnash their teeth and suffer ignominies as more successfully accoutered mates march past them. Unable to make the expected contribution to the objectives of the moment, and aware of their personal limitations, such children may carry seething within them a good deal of distemper and resentment, which may or may not come eventually to focus upon some personality or personalities in the environment. Whether or not thus focused, it certainly does militate strongly against serenity and satisfaction in the daily tasks of the schoolroom, and becomes the point of departure for much escape behavior.

JEALOUSY

Third and last of the exciting emotions with which we are here concerned as students of childhood is jealousy. Although usually less shattering and torrential than either fear or rage, jealousy sometimes drives its victims to conduct quite as extravagant as does either of these. In fact, some of the most revolting crimes recorded in the public press issue from great jealousies that madden men and inflame them to uncontrollable fury.

In childhood, jealousy is a surprisingly common experience, though its existence may often be unsuspected by parents and adult mentors. It may affix itself to a parent, to a brother or sister, or to any other person within the range of the individual's associations and contacts.

Probably one of the commonest of early sources from which jealousy springs is the arrival of a new baby in the family—especially the *second* baby. Heretofore one has been the only child; one has grown into and through the toddler stage with a comforting and never-challenged sense of importance; one has ruled supreme in the hearts of father and mother; there has been no call to share their affection with somebody else.

But now comes a pretender for the parental affection; a new center arises about which the family is seen to revolve, and the older child may resent the newcomer and refuse to accept him. Much gnawing jealousy at the seeming transfer of the parental love to the tiny new member of the family is a common reaction among children who thus feel themselves supplanted in the love and plans of their parents. Only if wise preparation has been made in a child's mind by his mother and father before the new baby comes, will the first-born meet the new experience with satisfaction and pleasure.

Closely allied with this cause of jealousy in a young child is the suspicion or the actuality of favoritism. Let a youngster become obsessed with the idea—regardless of whether there is any real foundation for it—that the parents care more for some other sibling, and the foundation is laid for much deep resentment and misery in the rejected or the less favored one. Stepchildren living with half brothers and half sisters often know this pain, although own children may also experience it bitterly. Parents need to exercise the greatest caution lest they seem to show more affection and consideration for one of their children than for another.

Teachers need to exercise the same care not to favor one child above another, but to maintain toward the least attractive of their brood the same consideration accorded to the most attractive and winsome. Moreover, in the schoolroom, teachers often fall into the error of comparing the behavior or the ability of one pupil with that of somebody else regarded as exemplary. Invidious comparisons, either direct or insinuated, are anathema to juveniles, and are to be scrupulously avoided. Otherwise, jealousies are certain to break out and to take heavy toll in personality adjustment.

Overdependence is often cultivated so assiduously by protecting parents as to leave a child woefully inadequate to maintain himself in the juvenile group. This also may result in much jealousy and envy of other children who know how to achieve and to safeguard their status in the play group or the gang. Otherwise well-meaning parents who suffocate free expression and self-assertion in their children, in their misguided desire either to shield them from the normal buffetings of life or to aggrandize their own parental omniscience, may thus be laying the foundations for personal inadequacy in their offspring; envy of others not so overwhelmed by parental care and more successful in coping with life is a logical consequence in the young victim.

CONTRIBUTIONS OF THE "PLAY THERAPY" TECHNIQUE

In the play therapy technique, frequently employed in guidance clinics to discover the deep sources of conflict in a poorly adjusted child, the role occupied by jealousy is sometimes strikingly brought out. In one play situation that the psychologist had set up for this purpose, for example, four-year-old Dickie was playing house with a family of dolls, including one doll for mother, one for father, one for Dickie, and one for Baby Joe.

In his monologue, as he operated his family of puppets, Dickie showed the deepest attachment for the "mother," caressing her and murmuring his eternal devotion in no uncertain terms. For the "father," while being less demonstrative, he manifested good feeling, bearing him off to another part of the room for his "work," and subsequently bringing him back to the family after work was over. Into the ears of the doll that represented himself, Dickie poured forth all sorts of plans and purposes, now ensconcing him in an "airplane," now addressing him as "Mista P'liceman," now prancing with him across the floor to a "fire." When his attention was directed to ignored Baby Joe, however, Dickie cuffed him and tossed him angrily into the nearby wastebasket, and then ran to "mother," and fell to kissing her and talking love to her. When the psychologist called Dickie's attention back to Baby Joe lying topsy-turvy in the wastebasket, and inquired what he was doing there, Dickie ran over to the basket and cuffed and spanked him again, exclaiming, "I hate Baby Joe! I love my mama! I don't want Baby Joe!" And back he hastened to "mother."

No confession could possibly have been more significant than this. One does not need to be a psychiatrist to reach the conclusion that Dickie's tantrums and his continued eneuresis and his general intractibility—all of which had lately been worrying his parents to the point where the aid of the clinic was sought—had their source in the blind struggling of a jealous boy to restore attention to himself and to achieve again the central position in the home galaxy from which the advent of another child had seemed to displace him.

The play therapy technique is a relatively simple and altogether natural means of tapping the smoldering jealousies as well as other unsolved conflcts that interfere with happy adjustment in children.[3] Once the thing that rankles is identified and understood, an adequate program of re-education and readjustment can be instituted.

THE RELEASING EMOTIONS

1. Joy

Joy is one of the emotional states which, contrary to the negative emotions already discussed, it is agreeable to prolong beyond the initial flare-up of the moment. Fear, anger, and jealousy are uncomfortable and even irritating if long continued. Joy and laughter and happiness are pleasurable and to be experienced as often and as continuously as circumstances will permit. Everybody has heard the shouts of joy and the gales of laughter that punctuate the free activ-

[3] V. M. Axline, *Play Therapy* (Boston: Houghton Mifflin, 1947).

ity of two or more children in the playroom or on the playground or in the yard or vacant lot. In fact, children would not be children if they did not abandon themselves often and completely to the thrall of sheer delight and merriment.

Unfortunately, as is the case with so many other psychological problems, the emotion of happiness has been studied very little in children of school age. We have a good fund of information on it in very young children, but next to nothing in older ones. We do know, however, that joy is experienced by children who are engaged at the moment in some kind of activity—usually motor—in which they are conscious of success or triumph.

In order to yield triumph or success, an activity must of course be well within a child's range of accomplishment and potential achievement. There is no joy experienced by one who cannot perform, create, or appreciate what the other juveniles are engaged in. Joy and laughter spring in childhood, too, more absorbingly from motor activities in which the individual is himself directly participating than they do from the observed performance of somebody else, although there is a deal of delight to be had occasionally from perception of incongruity, mystery, or the bizarreness in the activities of others.

Laughter seems to occur spontaneously in a number of juvenile situations, often those in which one of the group is observed to be clumsy or awkward, or inferior to oneself, or is serving as the unsuspecting butt of some joke or trick. Discovery that a mate is humiliated, or flustered, or timid, or overcautious, is likely to set off laughter and joy. So too is the experiencing of competition in almost any form, ranging from quiet games to scrapping and wrestling. Conundrums, guessing games, alliterative jingles and tongue twisters, "code" and secret writing are among the pleasant juvenile activities that comprise the background for competitive matching of wits and demonstration of skill. All that is needed is a stage setting in which there is the imminent possibility of somebody's triumphing physically, emotionally, or ideationally over somebody else. Laughter and delight occur also in the mere experiencing of such motor activities as running, climbing, camping, roughing it, swaying in trees, yodeling, catcalling, aiming and throwing, hitting, creeping up behind another to startle or trip him, and so forth. Girls, in addition to many of these forms of motor expression, derive much pleasurable emotion from talking, doll play, costuming, knitting, "confidences," strolling, and the like.

In school, as much pleasurable emotion should be experienced by children as the limitations of the classroom situation will permit. And, although the schoolroom scene lacks the possibilities of pleasurable experience through big muscle activity, it does and should provide plenty of background for enjoyment of a less boisterous and physical sort. Tasks cleverly selected and well within the range of ability of all the children make for pleasurableness and the promotion of personal participations. Variety of procedure, method, approach, and technique keep young people interested and alert. Cheerfulness and wholesome optimism in the teacher tend to produce emotional reaction in kind. Frequent appeal to humor; live discussions; importation of the great extra-school world of adventure and achievement into the arena of the classroom; friendly give and take of opinion and point of view—these will all add to the pleasurableness of the learning process. Subtract these from it, however, and there remain only boredom and the ill-repressed desire to escape into the more enticing and exciting world of adventure outside.

2. Sympathy

Here is one of the releasing emotions that is fundamental to the welfare and happiness of our human society. Only as we can manifest true concern for the trials and tragedies suffered by others can we experience emotion at its best. And, on the other hand, only as the sufferer feels the impact of such concern from another can he steel himself to meet the exigencies or the tragedies of the hour. Thus, "mercy," says Shakespeare, ". . . is twice blest: it blesseth him that gives and him that takes."

Sympathy among children rarely springs spontaneously at sight of injustice or suffering. It can arise only in an individual who has achieved sufficient maturation and sufficient experience in living to be able to put himself in fancy in the place of the aggrieved person and to feel vicariously what he is feeling. Such being the case, it is obvious that children are much more limited in the range and quality of their sympathies than are most adults. They lack the perception and the retained experiences that the latter possess—or ought to possess—by virtue of the very fact that they have lived more years and have seen more of life.

It is therefore not unusual to find children distressingly unsympathetic and unfeeling, when judged from adult standards and from adult vantage points. They may on occasion rifle a bird's nest, pull

off the jumping-legs of grasshoppers or the wings of flies, worry and tease their pets, call their mates by names that cut to the quick, make sport of the crippled or the handicapped, and fling cutting remarks about the homely or the big-nosed or the long-eared or the harelipped or the bowlegged. Sympathy exists in these children only in embryo. Only as they come in the process of time and experience to understand the significance of suffering, sorrow, mishap, and abnormality can they react with feeling and concern in these situations. Teachers should therefore understand that their children are children, and that when they display what appears to be unconcern and even downright cruelty at the trials and the inadequacies and the frailties of their mates, they are manifesting their immaturity rather than any inherent maliciousness or desire to hurt.

The responsibility of the school is, then, to provide some adequate basis for appreciation and understanding of life at all levels, from the insect to man. Without obtrusive pointing of morals and obnoxious sermonizing, teachers are usually able through the materials of literature, natural science, biography, and history to nourish in their children the rudiments, at least, of broad, wholesome sympathy for every order of life. Children are not naturally callous, any more than they are naturally sympathetic. These attributes are built into human character by training and experience.

3. Love

In much the same way that sympathy must wait on experience and understanding, so filial love as an emotion cannot be experienced by the child until he has piled up an experiential background of comprehension and appreciation. In its early form, this emotion in the child is hardly differentiated from a strong physical dependence upon his parents. Parents protect the child, care for him, are necessary for his physical welfare and his feeling of well-being and comfort. Beyond that, there is at first little if any manifestation of filial regard in the younger child. Imperceptibly, however, over a period of years, there builds up within him an originally vague but latterly distinct and tangible appreciation of his parents that blossoms by middle childhood into unmistakable affection. The earlier satisfactions from physical dependence and care broaden out to embrace truly spiritual values that had no existence before. Then and not until then can one truly say that a child loves his mother and father.

But once maturation and understanding have made possible the

experiencing of filial love, it manifests itself in great strength, ordinarily showing neither diminution nor faltering as long as life lasts. This devotion to the home and rooftree becomes one of the strongest forces that make for stability and order in our human society. The strength of a nation lies peculiarly in its homes and in the loyalties that all their members, young and old, feel toward them. Even toward parents who prove themselves unworthy or dissolute, there is a strong bond of loyalty that often resists all attack and all denunciation.

This emotion, beyond the four walls of home, provides the essence of friendship in childhood. Chumming and comradeship exist in large part because children are drawn together by natural appeal. True, the accident of propinquity plays a part; but even so, the bonds that result from mutual associations frequently outlast geographical contiguousness and continue to be strong long after time and distance separate pals of yesterday. The joy that every boy knows when in the bosom of his gang, or when following stream or forest trails with his chum, or when chatting or sparring with him in the back yard is a token of the radiating warmth of affection spreading from one juvenile personality to another. The boys would sneer at the idea of calling it love; but love it is, in its best juvenile sense.

The spectacle of romantic love for the opposite sex, of course, is not seen among school-age children. It comes properly only when adolescence arrives to cast its thrall and glamor over youth. At most, teachers of elementary-school pupils encounter only occasional cases of premature infatuation, often on the scale of puppy love, which ordinarily amounts to little. For the most part, there is likely to be considerable skepticism and aloofness between boys and girls throughout middle childhood and even later childhood, often continuing until pubescence brightens these relationships with a new light. So far as possible, teachers should strive to promote among all children and both sexes friendliness, mutual appreciation, and sympathy. Out of such feelings of respect and trust among juveniles arise ultimately universal love and respect for an individual's fellow man, his community, his country, and his world.

Frequently, due to various causes quite outside her own making, a teacher discovers that some child in her group is becoming overfond of her. Such a child must be handled very carefully in this situation, if the danger of his becoming a "teacher's pet" is to be avoided. Special effort must be made to treat him exactly like every-

body else, requiring of him the same faithful performance and granting to him no unusual favors or immunities. Unfortunately, a teacher is sometimes flattered by such evidence of devotion and is guilty of purchasing its continuance by sundry unwise indulgences. Strict impartiality, warmed, however, by genuine interest in and love for all the members of her brood, should be maintained scrupulously by every teacher who aspires to nurture her children's emotions wholesomely and hygienically.

PERTINENT QUESTIONS FOR DISCUSSION

1. What sort of society should we have if emotion were to be eliminated from our lives? Would it be better or would it be poorer than at present?
2. Present a brief history of some child known to you who evinces on most occasions an excessive domination by emotion.
3. Observe for fifteen minutes a group of children at play on the playground, jotting down all the emotions manifested and the number of times each one of them is exhibited.
4. Make three parallel lists indicating the typical forms of overt expression of (1) fear, (2) rage, and (3) jealousy in children.
5. Compare a selected first-grade child with a sixth grader for the purpose of noting the effects of maturation upon the control of overt emotional expression.
6. Try to make as frank and accurate a judgment as possible—in reminiscence—about the role played by fear in your own childhood; by anger; by jealousy.
7. Cite instances known to you in which adults have resorted to fear as a means of controlling or disciplining children in their care. Do you know what the results were?
8. Draw two diagrams to show emotional conditioning in a child: one before the conditioned response was established, and one afterwards. Use an original situation.
9. List as many different sources of fear in children as you are able, preferably using actual children whom you know to exemplify each.
10. Draw two diagrams to show emotional unconditioning in a child: one while the conditioned fear is in control, and one after it has been broken down.
11. Analyze your own classroom in a search for fear bases that may be keeping your children timid and apprehensive.
12. Report an instance of temper tantrums seen in some child whom you know or have observed. How was it handled by the adult at the scene?

13. Present a brief case history of a jealous child, suggesting the reasons for his jealousy and recommending practical therapy that should result in eliminating it.
14. How successful do you feel your own classroom is in providing pleasurable experience for the children?
15. In what specific ways are you succeeding in creating sympathies of one sort or another in your children?
16. Make a study of chumming in boys in your own school or neighborhood; of friendships between girls.

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CHAPTER 3

ATTITUDES AND HABITS

Some Children To Identify in Your Room

A child who . . .

(1) manifests the peculiar culture pattern of his race or stock;
(2) is supercilious regarding the superiority of his own race or stock;
(3) is not yet psychologically weaned from his home;
(4) is babyish and immature for his age; is surprisingly mature;
(5) comes from an obviously uncultured home; a cultured one;
(6) has been encouraged at home to learn before coming to school;
(7) is intellectually curious; one intellectually torpid and inert;
(8) reflects some of the attitudes of his teacher;
(9) exerts a somewhat unwholesome influence in the group;
(10) reflects attitudes "caught" imitatively from his mates;
(11) is undergoing obvious transformation in a specific attitude;
(12) evidences appreciation of some child of another race;
(13) exhibits a strongly tinged emotional attitude;
(14) manifests anger when his convictions are challenged;
(15) shows prejudice in an attitude;
(16) shows a definite attitude toward right and wrong;
(17) obviously has not yet generalized his moral standards;
(18) manifests a concomitant attitude derived from some area of study;
(19) is being strongly motivated to action by some attitude;
(20) shows signs of hero worship;
(21) appears confused by the disparity between precept and example;
(22) is dominated by a bad habit; by a particularly good one;
(23) is held back by inertia.

GENERAL ORIENTATION

Teachers and educators are coming more and more to realize the prime importance of attitudes. For a good many generations schools were concerned chiefly with building knowledge and skills into the brains and muscles of children. The great body of human knowledge as it exists in history, literature, science, mathematics, and all

the other areas of man's experience, presents, and has always presented, a challenge to teachers and learners. Its imparting has constituted the chief emphasis in ordered and graded education. Teachers have been zealous that those potential skills of hand and eye and muscle that inhere in the neuromuscular mechanism of the child, usually clamoring for expression, should be given full opportunities for development in the schoolroom and on the playfield.

Basal and obvious as these two great educational purposes are, they are hardly more significant than are the cultivation and shaping of children's attitudes. This latter goal has not always been envisaged by schoolmen; and if envisaged, it has been frequently either forgotten completely in the educational scheme, or else subordinated to the achieving of the other two purposes. In consequence, the modern age is confronted with a brand of culture and citizenship that is long on fact, broad on skill and mechanization, but woefully shallow in those human values and appreciations and convictions that alone must be relied on to give direction and guidance in a world that has grown to the complexity of ours in the middle twentieth century. In the present chapter we shall pay considerable attention to the cultivation of attitudes in children of school age.

WHAT DETERMINES A CHILD'S ELEMENTARY ATTITUDES?

In the primary classroom you will find widely varying attitudes already functioning among the children. Indeed, in some areas of their expressive lives these younger boys and girls will manifest opinions and other attitudinal traits that seem to be quite as adamantly implanted as are many of those found in much older children, and even in adults. Fortunately, not all of them offer too great resistance to eventual change and modification under the skilled guidance of teachers; others of them—and in some cases perhaps equally fortunately—are likely to persist rather tenaciously throughout the school period and beyond. Fortunately, too, many of them are only skin-deep, and may be thought of as ephemeral or developmental only, to be revised, cast aside, or more firmly established with the accumulating experiences of life within and outside of the schoolroom. What, then, can be the source of a child's attitudes? And why are they not more uniform within a given age group?

For an answer to this question we have but to ask the same question about the general adult population. Why is it, for example, that

one man is a Republican, another a Democrat? One a profane man and another a clean-speaking one? One interested in gardening, boating, chess; while another dislikes all of these and enjoys social clubs, traveling, argumentation? The explanation of each man's predilection obviously must lie in the total background of his experience and in the degree of successful participation or of failure that he has achieved in the myriad situations and activities with which he has been associated. If gardening and boating and chess have interested him and given him relaxation or nepenthe, he tends to absorb himself in them whenever opportunity offers; if, on the other hand, they bore or call our negative emotions in him, he tends to shun them and to form a decided distaste for them. The resultant attitudes toward these activities shortly become fixed, and go to make up a definite component of his total personality.

Like adults, though obviously on a somewhat more restricted scale, children absorb their attitudes from the experiential backgrounds which have produced them and against which they have passed their brief days. We may distinguish five different influences that make up this background during the years previous to a child's entrance into school, and subsequently during his school years.

1. The General Culture Pattern

This is, in many ways, the most obvious of the five conditioning factors that combine to determine a child's basal attitudes. Given a white, Caucasian ancestry, an individual will certainly imbibe early the racial traits, outlook, and prejudices of his remote ancestors. If he passes his first five years in an area where the color feeling is strong, he may become so bitterly and pugnaciously antagonistic to those of another contiguous race as to have his entire subsequent emotional life warped and distorted. The fiction of racial superiority, so widely credited by the various peoples of the world, gets a firm foundation in the preschool mores in the midst of which the child acquires his first international orientation. In regions less acutely race conscious, of course, such juvenile attitudinal extremes fail to develop.

Beyond the prejudicial bounds of the racial mores, there are, of course, many other neutral—or actually fortunate—attitudes that a child acquires early from the general culture pattern of his racial stock and his national extraction. These undoubtedly include such indigenous items as racial pride, awareness of and rudimentary loyalty to kind, consciousness of nationality, superciliousness toward

other nationals, and general commitment to the impinging folkways. These are among the things that cling closely around the shaping personality of every child born and reared within any culture pattern.

2. The Family

Given the Jones family and the Jones slant on life, Sammy and Sally Jones will tend to be small editions, with variations, of the paternal pattern. In their six-year-old way they will think, feel, act, and conduct themselves much as do their elders and the other members of the Jones family. Until this fireside pattern has been exposed to various trimmings and alterations by the extra-family experiences of Sammy and Sally as they venture forth from the yard and the surroundings of home into the great formative world of the neighborhood and the school and the gang, these two young Joneses will continue to be the old Joneses. Occasionally you will observe most astonishing similarities between the mannerisms and viewpoints of particular children and those of their particular parents. The expression, "Chips off the old block," has a striking attitudinal reference as well as a strictly biological one.

Discernible among the family-based traits and attitudes that children bring with them to school at the entering age of five or six are all manner of nascent adjustments and maladjustments. You, the teacher, will have no difficulty in recognizing and differentiating children who are insecure and timid; who are quite lacking in self-confidence and who dissolve in tears if left alone, or if confronted with new or challenging situations; who are unhappy and homesick and stare about with wide eyes; who are uncertain, dazed, ineffectual, at a loss as to where to hang their coats, how to learn the way around a strange building, where to keep their belongings, where to find the toilet; who are babyish and immature and still use baby talk, mumble inarticulately, become rarely more than monosyllabic, are shy, secretive, bashful, and negative; who are withdrawn, introverted, and look out critically upon others at play, without being able or knowing how to join in with them; and who show their lack of cooperation by pouting and sulking when restricted or soft-pedaled.

At the opposite extreme, reflecting a different type of family background and training, are the children who tend to ride roughshod over the entire scene; the show-offs who have been so accustomed at home to the center of the stage that they know no other

way to retain their security than to strive to win the limelight by their boastfulness, or their prowess, or their loud voices, or their assertive gestures, or even by kicking, screaming, or otherwise indulging in paroxysms and temper tantrums; the uncooperative and disobedient, who are indifferent to reasonable rules and requests, who selfishly appropriate to themselves the desired toy and materials; the demonstrative, overtalkative, overanimated, who have never been taught at home to listen attentively to others; and many other types of children whose overaggressiveness, boisterousness, and irrepressibility render them for a time at least social liabilities rather than social assets in the primary grades.

Every one of these forms of reacting reflects in one way or another the parental influence. Salutary or unsalutary, the influence is there, already exerting itself unmistakably in the genesis and growth of juvenile attitudes toward themselves as individuals, toward other children in the vicinity, toward the teacher as an adult *in loco parentis,* and toward the total unfolding environment of learning and of social growth and adjustment.

In addition to these attitudes toward aggressiveness or non-aggressiveness as they pass into and through the school environment, young children bring from their particular home constellations already formed attitudes toward situations that might be calculated to arouse their active curiosity or their intellectual interest and zest. The striking individual differences among school entrants in the simple interests of early childhood are apparent in every area of potential experience that the primary teacher creates to arouse them to educative activity. These areas include, of course, all those play, linguistic, expressional, dramatic, constructional, and related opportunities in which primary grades abound.

The cultural backgrounds of homes vary widely in stimulating these forms of self-expression. The existence or non-existence of pictures, picture books, records, radio programs, family games, story hours, picnics, trips, home carpentry and gadget making, home industries and "chores," hobbies, toys and playthings, and similar contacts and leads, determines in large measure whether the cultural level of a child at six is high, average, or close to zero. In many homes, unfortunately, parents do little or nothing to encourage a child during the preschool years to scribble with crayons, to recognize and perhaps print and write his name, to know and recognize the common colors, to understand "left" and "right," to talk freely about what interests or excites him, to assemble puzzles and

handle constructional toys, to use new words, and so on. The end result of such failure on the part of the family to stimulate mental interests and curiosities in preschool children is, obviously, a school entrant whose intellectual attitudes are discouragingly poor and whose thirst for self-expression manifests itself in negative and unwholesome ways rather than the reverse.

3. Teachers

Beginning with his first days of school experience, the child is brought arrestingly in contact with another influence that will not only strongly affect many of his preschool attitudes, but will also be powerfully exerted upon most, if not all, of the secondary ones he builds up during the school-exposure years. We shall be concerned at many points in the present volume with the role of the teacher in the over-all development of the child. It is sufficient at this point merely to call attention to the influence she has upon the attitudinal life of those in her room.

Much of the teacher's influence is obvious in the shaping and reshaping of children's attitudes. If her requirements for her children include industriousness, cooperative participation in the tasks undertaken, clear thinking within the range of their intellectual maturation, exactness and precision, politeness and courtesy, self-control, attention focused with reasonable tenaciousness upon the task in hand, and if in the carrying through of these requirements she can humanize them all by the maintenance of a saving sense of humor and a discerning insight into and understanding of child nature and child values, she may be reasonably confident that the juvenile attitudes that are emerging from the learning situation from day to day will be wholesome and hygienic.

More subtle than these somewhat obvious influences that the teacher exerts are those less tangible but nonetheless powerful ones that her own personality is continually exerting over the unconscious behavior of her pupils. If she has achieved the stature of an adult emotionally and is not prey to inner resentments and infantilisms that ought never to have survived her own adolescence; if she is quiet and self-possessed in the many trying circumstances that arise in a school setting; if she is just and impartial, but human, too; if she is intellectually honest and sincere; if she possesses poise; and if in her teaching she leans toward tempered enthusiasm rather than toward monotonous intellectualism, not only will she herself move through the scene with serenity and inner peace, but her children

will, like attitudinal chameleons, reflect in their own personalities a bit of the color and the light from hers.

4. The Environment

To a notable extent, likewise, the attitudes of the children in a community reflect the ideals and viewpoints of the adults who compose and govern it. In diverse ways—material and immaterial—this social osmosis of adult standards into juvenile standards and values goes forward. It proceeds from such widely assorted items as the general level of community respect for law and order, particularly with reference to the enactment and enforcement of regulations and ordinances for the adequate protection of children and youth; the worthiness or unworthiness of the political setup that controls the citizenry; the degree of civic pride and consciousness that inheres in the rank and file as well as in the community leaders; the cleanness of streets and alleys and back yards; the adequacy or inadequacy of housing; the tolerance or intolerance of slum areas; the control of amusements, pool rooms, taverns, bars, gambling resorts, and the like; the sufficiency or the insufficiency of playgrounds, public parks, community houses, boys' and girls' clubs and organizations; the good or ill repute of schools, school boards, and school administrators; and the availability or non-availability of school and branch libraries conveniently located and equipped with reading matter intelligently selected for children of every age.

All these matters are symbolic of the attitudes of the adult population of any community. Inevitably, each one of them—and many others that might be included in the list—operates to condition the attitudes and the values of the juvenile portion of the population. We are often prone to forget the subtle relationship of community values to individual purposes and standards.

5. Mates and Gang

By no means to be neglected or overlooked in the influencing of a child's attitudes are the molding experiences he undergoes in his free contacts with other juveniles. This profound creative force in the area of personal values and traits is exerted in two ways: first, by the actual concrete example one child sets another—physically, socially, emotionally, morally, intellectually; and second, by the more elusive inner appraisal of oneself that every individual inevi-

tably makes and remakes as the give and take of his associations with other individuals write their record inexorably on his self-evaluating mind.

So far as the first of these agents goes, the concrete exposure to the habits and values and personalities of his mates, the imitative effects of such contiguity require no elaboration here. Every parent, teacher, and layman knows the socio-moral dangers that children of good standards and habits are subjected to by the presence among them of even a single child who departs radically from the accepted and conventional standards of conduct. This danger is increasingly great if the asocial individual possesses qualities of leadership, or inspires admiration from onlookers and companions in the crowd, or if he chances to be somewhat older than the rest. Imitation or emulation of the unsocial or amoral habits, attitudes, and values of such an individual is likely to be spontaneous and to a degree unconscious. A really vicious or unprincipled but aggressive boy or girl is frequently a strongly contributing influence in the encouragement of idleness, waywardness, trickery, and improper adventure in at least the more impressionable of the companion group.

Less obvious but nonetheless potent in the genesis and growth of a child's attitudes and values are the numerous evidences his associations and experiences with his mates give him of his own inner adequacy or inadequacy. In his play life with others, he learns to estimate rather accurately his strong and weak points; to harbor jealousies, or resentments, or timidities, or their opposites; to know himself as a weakling, or as a tower of juvenile strength; to appraise a considerable area of his moral and emotional and social self and to evaluate it in the light of the expected or the universally observed. Persisting attitudes toward his own ego in the give and take with other egos are thus established, and these become dynamic in implementing both his present and his future adjustment.

SOME FACTS ABOUT CHILDREN'S ATTITUDES

1. Attitudes May Be Changed

Teachers of children in school are charged by society with the responsible task of socializing them and making them not only into good citizens now and tomorrow, but also into individuals whose outlooks upon life in all its ramifications are healthy and well

adjusted. You may, or you may not, as you stand before your children or as you work with and among them, be soberingly conscious of this high mandate from the public. Regardless, however, of whether you are aware of this mandate, it is there, and you can probably think of but few things you do in the course of an ordinary school day that do not contribute to this great end. The teacher is, in all conscience and beyond everything else, a shaper of attitudes and a creator of values. In its overtones, at least, all her work is directed toward setting a stage upon which juvenile actors may build wise and commendable viewpoints, socialized attitudes and habits, and a background of values that will find social acceptance later on.

Fortunately, attitudes can be modified. If this were not true, where would be the virtue in the multiciplicity of exhortations, scoldings, reproofs, and warnings that parents perpetually voice? And, on the other hand, where would be the virtue of their words of commendation, of encouragement, of praise and approval when a good deed is done? And surely, if it were not true, vain indeed would be many if not most of the hopes of teachers that they may create a love for learning in some, at least, of their young subjects, or that they may superimpose upon the earlier selfishness, brazenness, disobedience, prejudice, and self-sufficiency, which many of them manifest, a subsequent generosity, politeness, obedience, and tolerance. Colaborer with the home and the community and the crowd, the teacher is able to bring about unbelievable transformations in all areas of experience that the schoolroom situation taps, from linguistics to morals, and from cleanliness to godliness.

In a large sense, education as a totality is a growing ground for attitudes, and every educative influence, whether good, bad, or indifferent, is cultivating the soil. The school for a few years is in a position to weed and harrow; so is the home. So, for the longest time of all, is the community. So may be the church and all the other sociological institutions. The school and the teacher have the distinct advantage of having an early chance at the task, and of having been trained and directed to pursue it arduously and untiringly with every child for approximately a decade. The sometimes discouraging circumstance that the extra-school agencies exert an influence antagonistic to that cherished and propagated by the school must not be allowed to dim the eyes of the teacher to the fact that none of them has the subsidized guaranty, the compulsory

universality, and the presumed skill and insight that the school and the teacher possess to establish and nourish desirable attitudes and to discourage and uproot their opposites.

One of the most thrilling and satisfying experiences you should be having in your own classroom is that of sensing the genesis and development of socially desirable attitudes and values among your pupils. If you can see forming a new attitude of curiosity toward some process of nature, or some phenomenon of science; if you can discern the dawning of a thoughtful appreciation of the people of another land or race; if you can trace the bourgeoning of a respect and admiration for the scientist in his laboratory, for the statesman in his legislative hall, for the laborer in his shop, for the industrial executive in his office, and an appreciation for the problems and disappointments and hopes that each of them is encountering as he strives to achieve his goals, you are standing veritably on the holy ground of emerging tomorrows in human relationships. And, moreover, you are yourself a party to the miracle, and as such ought to be proudly humble in your role of creator.

Every child will form attitudes and build for himself a system of values. Child psychology proceeds basally from the proposition that the nervous system is highly plastic in early life, and that habits and attitudes are bound to be formed. The nervous system does not remain plastic; neither does it remain unmolded. Good and bad alike impinge upon the child's eager sense organs, and out of the totality of the incoming stimuli he builds his life outlook, whether for good or for the reverse. The teacher moves across the scene as society's agent to help him hold to the good and the constructive and the socially valuable among his experiences and to encourage him to work them all into a serviceable and dynamic unity.

2. *Children's Attitudes Are Tinged with Emotion*

So also, of course, are our adult attitudes. Few of our basal viewpoints, opinions, and convictions are ever arrived at originally by cold intellectual analysis, and the continuance of fewer still can be dissociated from strong emotional reference. You have but to tap the mental process of anybody, at almost any point, to find that adult human life is a strange admixure of information, misinformation, prejudice, and biased opinion, and that most people will flare up emotionally at the drop of a hat when any of their pet beliefs or convictions are challenged. The very immaturity of children and the

freshness with which they look upon the fascinating scene about them may be expected to favor rather strong emotional reactions. As they labor to interpret their surroundings, and as they spar for position in the social milieu, they do so with much vociferousness, and it is inevitable that their own personal feelings shall play arresting and dynamic roles. Between the testimony of reason and the testimony of emotion, the latter will inevitably spring the more spontaneously and dominate the more compellingly.

One need but observe any children's play group for a short time to note the readiness with which emotion in general arises. There is little quiet conversation; instead, there are raucous shoutings and animated gesticulations. Claims and counterclaims are punctuated with flaring anger, taunts, and fisticuffs. The inherent pleasurableness of the play is evidenced by peals of laughter, ricocheting from group to group as the children dash about the yard. Scorn, pride, rage, admiration, jealousy, disparagement succeed one another rapidly.

In the attitudes they maintain toward one another, their school, teachers, parents, tasks, and surroundings, this same emotional coloring is omnipresent. Chums are frankly admired and fraternized with; unpopular mates are avoided, or even openly scorned. Loyalties to their schools are definitely more than skin-deep; so is their belittlement of the school across the town or city. For individual teachers they may feel strong attachment or equally strong aversion, and they are not loath to express their feelings emphatically. For his parents, a boy will take up cudgels whenever they are belittled or slandered in the play group. His home is sacrosanct; his father is likely to be his hero; his mother, a paragon of all that is good and desirable; he will defend them both to the last ditch against any and all detractors.

Against school tasks he may, especially when in the bosom of his gang or set, chafe and explode violently; into those that he fancies, on the other hand, he will often throw himself with abandon; for those that are neutral to him, he is likely to trump up attitudes of annoyance and general dislike. In the familiar surroundings of the gang there is a pleasurableness that satisfies hugely; in a contest in which two schools, or teams, or gangs are pitched, the experienced joy and satisfaction exceed all bounds; in the summer camp, or at grandfather's house in the country, or before the prospect of a trip, picnic, or other unusual experience, emotion is keen. What disappointment was ever so poignant in the lives of any of us as the utter

misery we felt when rain ushered in the morning the school was to have its annual outing!

3. Children's Attitudes Are Powerful Motivators

Attitudes play dominant roles in the determination of action in childhood—as of course also in adult life. A boy will go all out for an activity that appeals to him, and his elders may find it extremely difficult to wrest him from it even temporarily; with almost equal zeal he will avoid those situations and activities for which he has no liking. If he is athletically inclined, he will spend most of his energy and time in improving his practice. One boy was so enthralled by baseball during most of his childhood that he literally haunted the ball field whenever a game was on. He knew the names and scores of every big league player in the country, and succeeded in amassing a collection of autographs from his idols that probably was not surpassed by any other juvenile in the state, or perhaps in the whole nation. All his plans for the future took their departure from his conviction that he would someday be a professional himself. Any schoolwork, or homework, or community enterprise that appeared to have no clear connection with baseball was distasteful to him.

Attitudes as motivators of action are equally dynamic in areas outside of play and recreation. Indeed, favorable attitudes may be so determining as to change almost any kind of physical or mental process into play; and conversely, they may so condition a child's reactions as to make simple tasks into the dreariest and most eloquent drudgery! Children will almost literally work their heads off in carrying through a unit of classroom study that is interesting or challenging to them. By the same token, they will languish and fret in silent or voluble distemper when confronted with a bit of work that does not appear germane to their present moods or needs.

In social situations, whether or not related to the school or learning process, the same principle holds. Door-to-door "peddling" of soap, extracts, trinkets, and the like, in order to earn a greatly desired bicycle or other prize; searching through attics and storerooms after old stamps to add to one's growing collection; reading and studying about animals in order better to care for one's favorite pet; fraternizing with policemen or firemen in order to experience vicariously the thrill and excitement those protectors of the public must obviously experience; studying and experimenting with elementary

electronics in order to understand some of the principles of radio, or perhaps in order to construct a set for oneself; hovering about the kitchen on cooking day in the hope of being invited to try one's hand at baking—these are all examples of the strength of motives in determining conduct and behavior. Whatever intrigues a child will tap his resourcefulness and his energy.

4. Attitudes Arise Often as Concomitants of Learning

One of the most prolific sources of attitudes in children is the classroom studying and learning to which they are traditionally and constantly exposed. Whenever a child is learning he is almost certain to be absorbing attitudes along with the facts. Suppose, for example, you are teaching in the second grade a unit on Protecting Ourselves from Sickness. The unit itself may well have grown out of the fact that one of the pupils is at home sick with measles and cannot come back to school for some time. Or it may have been suggested by a visit from the nurse or the school physician. So far as the acquisition of specific new information is concerned, the children may learn, for example, that measles is one of the commonest diseases children have; that it has certain recognizable symptoms; that it characteristically runs for a certain brief period of time; and that afterwards recuperation is likely to come about rapidly, provided proper care has been given the patient.

More important, however, is it that the children shall develop, as concomitants of learning, wise attitudes toward measles in particular, and incidentally toward other children's diseases in general. They should, for example, learn attitudes of caution in exposing themselves to disease; of respect for and trust in the doctor and the nurse; of being good "patients" if they chance to fall ill themselves; of trying to protect others from diseases that they are presently having; and of careful observance of the prescribed directions for getting over a disease. At a still higher grade level, they should develop proper attitudes toward boards of health, quarantine ordinances, clean food and drink, community sanitation, and the like. Such phases of learning are in many ways of much greater personal and social importance than the mere mastering of the facts regarding disease.

In a sixth grade, likewise, a unit on the coming of the white man to the New World that stops with a presentation of the historical facts and events of the period of colonization is woefully incomplete. It is of paramount importance that children learn to appre-

ciate the hardships of the early settlers and their zeal for building up a new kind of civilization; that they feel attitudes of sympathy for the displaced Indians whose lands were wrested from them, often cruelly and wantonly, and of admiration for the people who braved the perils of the frontier and the uncharted seas to set up a new home for themselves. Always in the background of the teacher's mind as she prepares her units for her classes there ought to be this supremely significant question: What appreciations, tolerances, convictions, loyalties, or faiths can be suggested to the children by these occurrences or facts? Study of the Chinese, without learning to admire something of their culture and their mores; of the Italians, without carrying away admiration for a Garibaldi or a Marconi; of Switzerland, without an emotional glow lighted by the sparkling peaks of the Matterhorn or the Jungfrau; of the reconstruction period following the Civil War, without sympathy for the freed but impotent black men left rudderless in a new current—these limited results accruing from the classroom years are indefensible. If tolerant attitudes and surging loyalties and aesthetic appreciations are ever to be instilled, it must be in childhood, for childhood is a golden age for the birth of these objectives.

In a still broader sense, when a child is learning facts and skills in his schoolroom experience, he is also formulating attitudes that will follow him always in his subsequent life. If, for example, he fails, or grows discouraged, or is criticized in his study of any field, he is extremely likely to develop dislike for that subject, and there is good probability that his dislike will spread to include a distaste for all subjects, for all learning, for school and teachers, perhaps even for society itself that maintains schools and compels him to attend them. Waywardness, truancy, and delinquency stem often from school distemper and disgust or failure.

On the other hand, experiencing success and interesting achievement may serve equally to color favorably the whole gamut of mental attitudes, so that a well-adjusted child in school may be expected to be well adjusted personally and socially in every relationship outside. Specific attitudes, too, such as appreciation of our democratic institutions, world-mindedness, and international tolerance, and the like, are other obvious and valuable concomitants of learning in the specific field of the social sciences, as are intellectual curiosity, the wonder sense, and humility in the field of natural history, and an urge to responsibility and participative citizenship in the field of civics and world affairs.

5. Attitudes May Be Very Prejudiced

It would be fortunate if all the mental attitudes children develop were unbiased. Unfortunately, such is not the case. It is inevitable that in the juvenile experience there should emerge numerous viewpoints and convictions that are anything but creditable and desirable. In the free-for-all existence of the playground and the school yard, for example, there spring up a good number of attitudes that are prejudiced and unwholesome. The intermingling of races and nationalities in our cosmopolitan juvenile communities provides the breeding ground for negative as well as positive mental attitudes. For Negro children, for Italian, for Finnish, for Lithuanian, for Greek, and for every other national group, there may emerge attitudes of intolerance and dislike that find expression in unlovely epithets hurled at members of one race or extraction by those of another, and returned in kind. Children of different backgrounds are often quick to disparage and belittle one another and to develop attitudes of aloofness, disgust, or downright dislike. Lifelong prejudices often grow out of these juvenile impressions imbibed spontaneously and thoughtlessly. On the other hand, and fortunately, most children tend to ignore racial and national differences among their mates, provided they possess good personalities and are good mixers and easy to get on with. Racial lines are drawn most sharply only when and if their representatives are observed to be mean, or "different," or clannish. In juvenile society, until it has been disturbed by inculcated or learned prejudices and intolerances, individuals are likely to pass for what they are worth as personalities and comrades.

Religious prejudice may be learned early, through indoctrination or through adult example. This unlovely trait in particular defaces our adult society, and the battle lines are frequently found to be drawn in the play society of childhood. Strong and often bitter attitudes fasten themselves upon children in the earliest years of their common experience and contacts. Economic or class prejudices, too, emerge early as the children of the fortunate or the "lucky" rub elbows with those of the less fortunate or the "unlucky." These socio-economic differences are apt to become accentuated by observed differences in men's possessions, money, influence, "pull," and the like, so that children from the lower brackets come shortly to envy and perhaps to dislike those from the higher ones, while the latter become patronizing and supercilious toward the former.

The school and the teacher stand in strategic position to ameliorate these social and religious and nationalistic attitudes. Increasing numbers of school systems, realizing this opportunity and also knowing that all prejudices are learned or taught rather than inborn, are putting forth good efforts to socialize the outlooks of their children and to prevent so far as possible the genesis of such negative and unwholesome attitudes. One of the most effective devices we have through which to achieve this end is the teaching of the debts we owe to every nation through the contribution of its emigrants to our own American culture and institutions. Characteristic of this sort of approach is the following paragraph from a bulletin used by the Massachusetts teachers: [1]

Subtract from the grand total of America the contributions of our racial and religious and economic minorities—and what remains? Subtract foreign-born Andrew Carnegie from our metallurgic industry; or David Sarnoff from American radio; or George Gershwin and the Negro composers from our native music; or Norwegian-born Knute Rockne from our football; or Dutch-born Edward William Bok from our publishing; or Danish-born William S. Knudsen from the automotive industry; or Russian-born Major de Seversky from American aviation; or Belgian-born Leo H. Baekeland from American chemical achievements; or slave-born George Washington Carver from biological developments. The temptation is to list hundreds of thousands who have thrown their particular genius into the melting pot. And behind those whose names we know are the nameless legions of immigrants, generation after generation, whose labor and lives went into very bridge and tunnel, every mine and factory, in these United States.

6. Attitudes Are First Specific: Later On, Generalized

It must not be forgotten, however, that before a child can become a world citizen and can achieve generalized attitudes of tolerance and appreciation for other nationals, other racial groups, other religions, other social classes, he has first to go through the step-by-step process of building specific attitudes and making specific adjustments. Tolerance and appreciation of the Negro race by white Tommy Jones must wait upon Tommy's accumulating experience with and understanding of black Peter Price, who sits across

[1] *Scrapbook for teachers* (Massachusetts Committee of Catholics, Protestants, and Jews, 200 Newbury Street, Boston, Mass.), p. 21.

the aisle in the second-grade classroom; and of black Roger Dyer, who sits across the aisle in the fourth grade; and with other black children with whom he fraternizes along the way.

Similarly, before Protestant Bill Towne can generalize an attitude of religious tolerance for Catholics and Jews, he must first learn to know and to like Catholic Joseph Connor, who sits behind him in the fifth grade, and Jewish Sam Berg, who sits in front of him in the sixth. And before Perry Andrews, scion of the wealthy house of Andrews, can experience a genuine respect for and sympathetic interest in the poorer and less fortunate peoples of the world, he must first fraternize happily and satisfyingly with all the unassorted Henrys and Jims and Pats and "Reds" who come from the other side of the tracks. The order of development of attitudes must ever be from the specific to the general, and, as in most inductive progressions, the danger is that there shall not be enough of the particular—or at least not enough *thought about* the particular—to lead to a secure and valid generalization. We shall see shortly that mental attitudes in all other realms of juvenile experience and contact arise out of particular, singular impressions.

SOME SELECTED ATTITUDES

Most elementary perhaps of all mental attitudes are those toward right and wrong. To the very little child, what is right is what is permitted by the parent; what is wrong is what is forbidden or punished by the parent. All parents, regardless of their own personal practice or conception of morality, probably wish for their children some measure of the good life and try to train them in that direction. As they come increasingly in contact with other children, first in the restricted environment of the home and family and immediate neighborhood, and latterly in the much broader environment of the school, the play group, and the more remote neighborhood, and as they come to grips with personal and social situations in which they must make choices and decisions, children of necessity abstract, little by little, some notion of what is right and approved and of what is wrong and disapproved. Early home training and example are basal; imitative example and emulation outside the home are secondary, though of hardly less importance. Specific ideas of right and wrong gleaned from teacher talks, from episodes and personalities in history and literature, from the current events of the day, from the impact with Sunday schools, clubs, and other social groups,

complete the formative pattern along which a child's moral ideas are cut.

Parents and teachers traditionally place a great deal of emphasis upon concrete events and situations that have moral values or reference, and rightly so, of course, provided too obvious moralizing is avoided. The story hour, tales from the heroes and the frontier, examples of heroism, self-abnegation, honesty, virtue, thrift, and the like, these are full of specific lessons in right and wrong out of which, with the passage of time and the accumulation of more and more such episodes and contacts, children will inevitably build more or less adequate general concepts of the principal moralities. It is extremely doubtful if right and wrong can be taught as such, or that, when so taught, they will affect conduct to any marked degree. Children can "learn" glibly to recite wise precepts, Athenian oaths, memory gems, catechisms, as we saw in the preceding chapter, but may feel as a result little if any urge to go and do likewise. As has been shown, children with excellent Sunday-school records are no less pervious to dishonesty than are children who lack familiarity with religious injunctions.[2] One learns in the field of morals, as in all other fields, by doing specifically, not by erudition and pronouncement.

Strictly religious attitudes and convictions as such, unfortunately, enjoy little or no cultivation in children in the great public-school system of America. Here is one of the most essential realms of experience that schools are not permitted ordinarily to touch. The result is that, since only a small minority of all children are enrolled in and attend Sunday schools, most children grow up without exposure to religious and spiritual training of a definitive and ordered sort. Passively indoctrinated by their parents into their particular forms of religious preference or persuasion, most of them fail to experience religious convictions and attitudes beyond, perhaps, smug assurance that their own particular form of faith is the best, though it may play no significant role in guiding their conduct. The outcome, as they grow up, is a cloudy, unworkable, and unclear conception of faith and human destiny. It is ardently to be hoped that in the not too distant future leaders in all three of the major faiths in America may come into long-delayed agreement on the fundamentals and the universals of religion, so that teachers in the schools will not be required to sidestep it and keep it in the limbo to which all tabu subjects are assigned.

[2] Hartshorne and May, *op. cit.*

Another interesting stage in the formation of children's attitudes involves the heroes they admire and would emulate. It is a significant commentary upon the traditional teaching of the Sunday schools that characters from the Bible and from religious literature are rarely chosen as children's heroes. Six-year-old children have been found to prefer such characters over all others in only 3 per cent of the cases; children of subsequent ages prefer religious heroes to a still lesser degree.[3]

As might be expected, the heroes of younger children are usually their fathers, mothers, teachers, policemen, firemen, or other persons from their own environment whom they know personally and with whom they are thrown into familiar contact. This percentage drops from 60 per cent to 30 per cent between the ages of six and sixteen years. At the same time, heroes from history or from contemporary life rise from 30 per cent to 60 per cent. Fictional characters and characters from literature, either because they *are* fictional or because they are discovered only occasionally, have never been popular as heroes or heroines for boys or girls, rating about the same as Biblical or religious characters. Far more fascinating are big-league ball players, gridiron stars, athletes, actors and actresses, radio personalities, noted aviators, explorers, and other contemporary personages on whom the spotlight of publicity is turned. Flesh-and-blood individuals such as these are unchallenged rivals of the attenuated, semi-mythical characters of yesterday, although as children pass into adolescence and learn about the great characters of the past, they may shift their preferences.

Pride in oneself and in what one can do, is doing, or has done, is an extremely desirable attitude to be encouraged in children. In an age in which there is pitifully little for children to do in the way of home chores and tasks, the opportunities for successful non-school accomplishment are not too many. Parents should try, however, to provide regularly some engrossing kind of assignment in which boys and girls can learn early to experience pride in accomplishment. Learning to keep one's room in good order, to care properly and faithfully for one's pets, to raise a small vegetable or flower garden, to read the news aloud to a dim-sighted grandparent, to play several games skillfully, to sort and classify and arrange collections, to solve simple problems, cannot but create a fine degree of under-

[3] D. S. Hill, "Personification of ideals by urban children," *Journal of social psychology,* 1 (1930), 379–92.

standable juvenile pride. If these achievements and skills can be ingeniously related to altruistic endeavors, to service and helpfulness to others, and to the social betterment of the home or community, so much the better for child psychology.

AN ADULT MISCONCEPTION

From their vantage point of many years of observation and experience, adults are very likely to forget that children need time to crystallize their attitudes, and to expect them to telescope a mass of individual contacts and exposures into complete, early, and final mature generalizations. Unintentionally, they delay or endanger the normally slow evolution of attitudes and concepts in their children by manifesting impatience at their immaturity, at their slow and often bungling learning of generosity, fair play, and kindness, and at their slow achievement of moral status and opinion. Parents admonish their children not to fight, and are surprised subsequently at the spectacle of torn shirts and black eyes—eloquent testimony that their precepts have not been heeded in the hot give-and-take of juvenile social contacts. They strive by admonition to establish in their children readiness and willingness to share their toys, sweets, and other possessions with their mates, and are chagrined when the children selfishly appropriate them for themselves and refuse adamantly to share them until commanded to do so.

It is relatively easy to live in an adult ivory tower, serenely insulated from the foaming currents of child society, and to surround a youngster with prohibitions and with fine moral precepts that guide—or ought to guide—adult society. The experiential world of childhood is not, however, an ivory tower. Rather, it is a continuous round of encounters and conflicts with people, situations and events that must be reacted to at the only possible level—a juvenile one. In these encounters, as they succeed one another and as maturation of judgment and intellect takes place, children must be expected to show transitory selfishness, or dishonesty, or rage, or hatefulness, or cruelty. Out of it all, however, will emerge ultimately, it is to be hoped, mental attitudes and convictions and values that tip the scales gratifyingly on the moral and positive side. Much patience, sympathy, and faith must buoy parents and teachers over the troublesome years during which these attitudes are being slowly refined out of the grosser manifestations that accompany and sometimes seem to negate them.

DISPARITY BETWEEN PRECEPT AND EXAMPLE

Another unfortunate condition in childhood that retards the development of wholesome mental attitudes toward social and moral issues is the manifest disparity between precept propounded and example observed. This discrepancy may first show itself in the home experience. Cautioned not to tell fibs, children perceive their elders indulging on occasion in deceit and misrepresentation. Admonished to play the game fairly and to be generous losers, they observe older people sparring for favored positions, flaring in anger when they lose, and sulking for hours afterwards. Instructed to obey the law, they see their elders flouting it and reveling in their cleverness at "getting away with it."

Beyond the home circle, this hiatus between what is preached and what is practiced becomes still more apparent to the discerning but confused child, who soon makes the discovery that many citizens think that rules and regulations exist merely to be flouted and ignored. Laws forbid spitting on the street, selling cigarettes to children, parking automobiles in restricted areas; yet every day children can see people spitting on the street, cigarettes are often sold to children, and many cars are parked in "No Parking" areas. Speed limits, posted warningly, are not "rigidly enforced," as the signs say; cars dash past at speeds well above the limit. Gambling and betting are tabu, yet there is plenty of gambling and betting. And so it goes. Small wonder, indeed, that children's values come shortly to reflect the careless and lawless attitudes exemplified in the conduct of the adult world into which they are rapidly growing.

THE STRATEGIC PLACE OF THE SCHOOL IN BUILDING ATTITUDES

This topic belongs somewhat more in the field of educational psychology than it does in that of child psychology. In passing, however, since children's attitudes are fluid and since they may be easily formed, modified, or completely transformed, attention should be called briefly to the function of the school and the schoolroom influence in shaping and fostering juvenile attitudes and viewpoints.

First of all, in the field of international relations and world citizenship, teachers have a high contribution to make from the earliest primary grades onward. Tomorrow's life on a small planet shrunken to the size of ours will depend largely upon the abilities of peoples to get along with one another, whether a fence, a river,

or an ocean separates them, and whether they live in temperate or in tropical regions. Naturally cosmopolitan until they have been made myopic in outlook, children respond eagerly and welcomingly to the lore and the culture of black men, yellow men, and white men, alike; of Dutchmen and Chinamen and Frenchmen and Malaysian men. They are themselves so near to the ethnic and the universally primitive that they seem to feel a commonness with all men and all races. Accidents of color, of latitude and longitude, of geographic region, are inconsequential. Through the skilled teaching of the principle of common brotherhood, and by placing emphasis upon the character, the ways of living, the contributions, and the friendliness of other peoples, teachers of children the world around may blast away the outer Jericho walls of racial and national prejudice and suspicion. To persuade grownups of the universal goodness and essential morality of mankind is almost hopeless; to assure children of it is relatively simple, and full of promise.

In the second place, the school has tremendous opportunity to train its children in the obligations and responsibilities of good citizenship in their own community, state, and country. Attitudes of good citizenship grow out of fascination for the days of old when our country was just taking form; out of the understanding and appreciation of the toil and sacrifice and hopes of our forefathers; out of respect and admiration for those newer comers to our shores who have heard the call of hope; out of respect for our institutions, for law and order and peaceful change, for authority and government; out of faith that we can resolve our problems of social living through intelligent study, through wise statesmanship, through arbitration and counseling together. These goals are not chimerical, but are essentially possible and achievable when those who teach are themselves passionately devoted to the cause of democracy and when they concentrate their skill and insight upon the building of those attitudes into the fiber of tomorrow's citizens.

HABITS

We shall devote only a minor portion of this chapter to the general subject of *habits*. Habits are so obvious that they need little discussion here. How do habits and attitudes differ? The distinction is a rather fine one, but it unquestionably exists. Habits are basally physical, muscular, skeletal. They concern one's gait, posture, form in doing things, table manners, manual skills, characteristic physical

reactions, and so forth. Attitudes, on the other hand, are *mental* habits, such as viewpoints, convictions, outlooks, and the like. The two obviously overlap, and one may be the prelude to or the outgrowth of the other. Both follow similar laws of development: both are consequences of repeated reactions in identical situations; both may be broken down, modified, and perfected; both will arise spontaneously in the raw, apart from specific instruction and training, as a result of an individual's exposure and experience; taken together, the two—habits and attitudes—comprise a large share of the expressive life of the individual; together, they constitute the major component of personality and character.

Elementary habits make striking appearance in the very young child somewhat before attitudes are strongly discernible. In the early home training of the infant, sleeping, feeding time, and elimination are regulated pretty much by the clock, and are early established according to a rather strict pattern. As he traverses the toddler stage and passes on toward school-entrance age, these physical habits develop great strength and persistence, and are supplemented by various other additional ones such as personal neatness, politeness and decorum at the table and in the presence of others, the cultivation of approved speech forms and the elimination of baby talk, dressing and buttoning, practice of certain simple health habits, and so on.

By the time a child is old enough to go to school he ought to have such elementary habits as these pretty well established. It must not be forgotten, however, that all sorts of homes send all sorts of children to school, and that inevitably some of the former will have been negligent and more or less casual and indifferent in the matter of helping their boys and girls to build these rudimentary habits. In consequence, the first-grade teacher finds in her room individual children who typify all extremes of bad as well as good basal habits. There will be those who are neat and clean (or at least, who left home so!), as well as those who are dirty and unkempt; there will be those who are polite, as well as those who are unbelievably impolite and crude; there will be children of passably good speech and children of uncouth and careless speech, and some others in whom baby talk and infantile speech forms will have persisted straight up to the door of the school; there will be some children who can manage their coats, their rubbers, and others who are manually helpless when it comes to removing or putting on outer garments; there will be, among those who have been taught to

brush teeth, wash neck and ears, observe some care for hands and nails, others who are as innocent of these acquired niceties as newborn babes. A part of the teacher's duties must therefore be solicitousness and zeal in encouraging in socially unready children the establishment of basal personal habits that ought in all conscience to be already functioning satisfactorily in the preschool period.

But even the best-trained children, when they leave the protecting and solicitous care of home and parents and are thrown into a large group of others of their own age, are likely to require a deal of patient and persistent supervision of their habits. The interplay of juvenile personalities is certain to create new situations in which the complement of habits inculcated at home may be found inadequate for the best and happiest adjustment. Moreover, as they grow older, children continually need to make new adaptations, if their growth and development are to progress smoothly. Hence a sizable entity in the total teacher responsibility is encouraging the correction or revision of some elementary habits, discouraging or eliminating some others, and stimulating the formation of still others that will be necessary for both the present and the future welfare and happiness of the child.

SPECIFIC HABITS TO BE ENCOURAGED IN PRIMARY GRADES

Habits that should be functioning increasingly during the early school years should certainly include the following:

Specific health habits
Adequacy in play and physical education
Self-reliance in caring for oneself
Dressing and undressing without assistance
Proper care of clothing and wraps
Cleanliness
Safety habits
Care and conservation of mechanical aids
Protection of school and other property
Protection of wild life, natural objects, etc.
Sharing responsibility
Focused attention for increasing periods of time
Improved speech, writing, expression
Smooth reading
Care of teeth
Increasing self-criticism and evaluation
Waiting one's turn

Working quietly
Faithfulness in the care of pets
Proper use of toilets, drinking fountains, etc.
Orderliness with possessions, materials, etc.
Dressing appropriately to season or weather
Obedience to warning signals, signs, etc.

These should represent fundamental expectations for every child in the primary grades, and should be regarded as minimum essentials in the area of habits and skills.

SUPPLEMENTARY HABITS FOR THE INTERMEDIATE GRADES

As the child progresses through the fourth, fifth, and sixth grades, he should continue the habits and skills established in the primary grades, adapting them as necessary to his increasing maturation. He should also give evidence of the emergence of others designed to meet intelligently his ever-expanding social and personal world. Among the latter, the following should be stressed:

Skill in the use of tools, gadgets, and devices
Increasing ability to summarize, generalize, make judgments
Making applicational use of knowledge and experience
Keen and reliable observation of events
Intelligent use of books, indexes, tables of contents, etc.
Judicious outlining and abstracting
Agility and precision in competitive athletics
Grace and rhythm in dancing
Skill in planning and carrying out games and events
Finesse in balancing, aiming, throwing, catching, etc.
Facility and readiness in conversation
Skill in manipulating, "handling," sorting, arranging
Nimbleness and suppleness of body
Muscle control and coordination
Alertness, promptness, and readiness physically
Skill in the prosecution of one or more hobbies

One need have little apprehension about the present and future adjustment of children if, by the time they have completed the elementary school, they give evidence of demonstrable achievement in all or most of these areas. Far from binding children to mediocrity or bungling performance through slavishness to habits, such habits as these become the very building stones of subsequent growth, achievement, and independence.

TWO FACTORS THAT MILITATE AGAINST THE HABIT GOALS OF THE SCHOOL

If all that was necessary to guarantee the proper evolution of children was the mere listing of desirable habit goals, child training would be very simple indeed. Two unfortunate circumstances, however, have to be taken into account by teachers and parents who set up habit goals and expect children to move toward them. The first of these is the natural inertia of young and old alike. It is easy to be slipshod; easy to fall into and remain in careless habits of speech, dress, hygiene, work. It is somewhat easier, probably, to slouch than it is to maintain vigorously erect posture; easier to toss things into the corner than to have a place for everything and everything in its place; easier to neglect one's skin, clothing, teeth, than to care faithfully for them. Good habits appear to need not only repeated practice but also a kind of yeoman commitment to the way of ultimate wisdom; otherwise, the ancient enemies, inertia and *laissez faire,* will creep up and devour one. Children, by the very nature of their immaturity and their inability to philosophize and make long-range adjustments, are peculiarly prone to be slowed by inertia. Their youthfulness and plasticity, however, render the task of calling them back to more ideal practice a decidedly less hopeless one than is that of attempting to reorient and revamp adult habit systems and patterns.

A second discouraging element in the training of children in desirable habits is the contrary example set them by innumerable elders. Teachers wage a difficult if not eventually a losing battle in encouraging children to form, for example, good speech habits, while those same children are simultaneously exposed to the barbarities and the slang and the laziness in speech of those around them who ought to know better. One teacher complained recently to the author that she was nonplussed to know what to do in the language work of her second-grade pupils, most of whom were enthusiastically and ostentatiously imitating the speech of a noted screen humorist who, in the discouraged words of the teacher, "wields far more influence over them than is exerted in the schoolroom example and the schoolroom practice." Here is a real problem, made still more sizable by the obvious fact that in their own homes many children are daily exposed to a pattern of speech that is inelegant and often crude and impoverished. The few minutes of drill in correct speech forms that children get in school can hardly

be expected to offset their daily exposure to less commendable and to downright malicious forms. The wonder perhaps is not that so few children develop good language habits, but that so many fail to develop vicious ones.

In other areas than speech, this same imperfection of environmental example makes the formation of positive and desirable habits in children a slow and laborious process. They are drilled in one set of standards in the school, and to some extent also in the home, but they come in contact with standards of behavior and conduct quite the reverse outside. To observe that people curse and swear, smoke and drink, gamble and bet, go about filthy and unkempt, jaywalk in the streets, abuse and deface private and public property, ignore the rights of others, break quarantine, befoul public washrooms, race the train to the crossing, and so forth, can hardly be expected to supplement the efforts of teachers to train children to do the reverse of these things. If anything, the poor example outside has the edge on the teacher's precepts if for no other reason than that school precepts are held traditionally somewhat apart in children's minds from the "out thereness" of life and behavior beyond the school environment and the years of school confinement. The latter suggests a goal and a reality that to them is in many ways more persuasive and more substantial and more dazzling. From their immature vantage point, the schoolroom years and the schoolroom experience are a momentarily real but unconvincing detention period before they may escape into the world of men and events.

PERTINENT QUESTIONS FOR DISCUSSION

1. Is there any particular evidence of race or class prejudice observable among the children of your school? If so, how do these attitudes show themselves and in what ways are you attempting to eradicate them?
2. To what extent can you infer the nature of the family background and influence from the attitudes of children in your classroom and on the playground?
3. Contrast the preschool training in habits and attitudes evidenced by children coming from varying home environments.
4. Can you discern the genesis of a particular attitude or viewpoint or opinion exhibited by a child that is traceable to the influence of your teaching or counseling? Does the attitude appear to be stable and likely to persist?

5. Do you personally as an adult and as a teacher present good evidence to your children that you have achieved emotional adulthood and have discarded the infantilisms that still cling to many grownups?
6. What is your general opinion of the osmotic value for children of the outstanding attitudes and values displayed by the citizens of your community?
7. Survey your school neighborhood from the standpoint of its freedom from questionable influences and establishments that might be expected to exert unfavorable influences over the shaping values of children.
8. Can you cite an instance in which the influence exerted over his mates by a particular child was unwholesome? What factors were probably responsible for his dubious influence?
9. From your daily contacts with children, give examples of juvenile attitudes or opinions that are strongly colored by emotion.
10. Enumerate several activities of children in which the principal motivators were deeply felt attitudes, convictions, or interests.
11. Present at least one striking example of the emergence of concomitant learnings from specific and routine schoolroom participation.
12. Do you regard yourself as a person on the whole open-minded and reasonably free from racial, nationalistic, and religious prejudices?
13. From your observation of child behavior, cite instances of the operation of attitudes toward right or wrong that have appeared from time to time in your children.
14. What persons or characters do your children idealize? Do you note any marked change in their identities as the children grow older?
15. What efforts are you making to encourage children to take pride in the things they do? In what forms or fields of activity do they seem particularly to wish to excel?
16. Do you find substantiation of the point developed in the chapter that children must pass through slow and discouraging stages of transitory selfishness, dishonesty, cruelty, and the like, before they develop positive and acceptable attitudes and ideals of conduct?
17. Suggest other evidences of the disparity between precept and example, in addition to those suggested in the chapter.
18. Contrast striking differences among your children in the habits which they display, using those included in the lists in the text as standards.

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CHAPTER 4

PHYSICAL AND MOTOR GROWTH AND DEVELOPMENT

Some Children To Identify in Your Room

A child who . . .

(1) (girl) is taller than a boy of the same age;
(2) (girl) is quicker than a boy of the same age in reaction time;
(3) appears to be growing fast; one who is growing very slowly;
(4) appears malnourished; one apparently well nourished;
(5) exhibits definitely racial traits in growth;
(6) has recently recovered from one of the children's diseases;
(7) has suffered physical depletion from children's diseases;
(8) manifests suspicious symptoms of incipient disease;
(9) has several poor teeth; one with perfect teeth;
(10) has chronic adenoid or tonsil infection;
(11) suffers from middle-ear disease (otitis);
(12) has dim vision;
(13) has impaired hearing;
(14) tires easily; one all but indefatigable;
(15) has found it difficult to adjust physically at school entrance;
(16) is extremely restless;
(17) shows evidence of a thyroid condition;
(18) shows evidence of a possible pituitary condition;
(19) illustrates a psycho-physical condition in his development;
(20) has profited from the school's health supervision system;
(21) has been disturbed by changing from normal left-handedness.

GENERAL ORIENTATION

There are few things in the world more obvious than the phenomenon of growth in living tissues and organisms. The casual observer, however, merely notes the superficial, overt evidences of this phenomenon, and fails to detect the sometimes delicate, sometimes tumultuous, tranformations that are taking place within the grow-

ing structure, whether it be a flower, or a kitten, or a child. In no type of organism, of course, are these processes of growth and change more fascinating than they are in the human child.

As a teacher, you may tend, like other persons, to take for granted the omnipresent and powerful growth impulse in your children as individuals and pay little attention to it. In the present chapter it is our purpose to outline some of the salient characteristics of the growth impulse, and some of the adjustive motor connections and potentialities that follow in its wake.

EARLY GROWTH

The time of greatest growth in the human child is obviously the prenatal, intra-uterine period. From the moment of conception to the moment of birth, the weight of the developing new person within its mother's body increases approximately a million times. There is no biological transformation outside foetal life that can even remotely compare with this magnificent accretion. The growth rate after birth is little more than snail-like in comparison.

During the first twelvemonth following parturition, the curve of growth, while dropping almost perpendicularly from the level it achieved during the embryonic stage, is still far higher than it will be at any subsequent time during the life of the individual. From birth to the age of one year, the child will double the height and weight he had on his natal day. If he were to continue to grow in stature and in weight at this accelerated rate during the next seventeen or eighteen years, or until he reached maturity, he would weigh no less than 250 tons, and would tower into the air to the height of some 50 miles! The characteristic diminuendo in growth rate postnatally is fortunate indeed.

It is interesting to note that the weight of the brain from birth to the achievement of maturity around twenty years multiplies approximately three times; the heart, ten times; the lungs, fifteen times; and the total body weight about eighteen to twenty times. This increase during twenty years is very slight indeed when contrasted with the millionfold gain during the intra-uterine months. It is, however, sufficiently great to account for much very drastic modification in the developmental and motor evolution of the individual, particularly during the years of childhood, when the greatest increments are registered.

BOY AND GIRL GROWTH PATTERNS

One thing that strikes the observant young teacher is the fact that girls appear to be slightly taller and heavier than boys of the same age. This difference is actual and exists from birth onward until early adolescence. Boys at five years of age, for example, average approximately forty-two inches in height, while girls of the same age are half an inch taller. At the age of thirteen, boys are approximately five feet tall, while girls average about an inch and a half taller. This feminine lead in stature will disappear within the fourteenth year, and thereafter the young males will take over, never to have their superiority again challenged.

Another interesting thing that will strike you is the fact that, in the neighborhood of the tenth year, girls begin to spurt still farther ahead of boys in height, achieving most of their maximum inch-and-a-half leadership during the immediately following years. Boys, on the other hand, do not commonly show this preadolescent upswing before the age of eleven. This circumstance alone makes still more obvious to parents and teachers—and to themselves!—the decided physical disadvantage boys suffer when compared with girls during the fifth and sixth grades, and extending into the first junior high-school year. Girls during this period are likely to be more quick in their reaction time, more fleet of foot, more devastating in the sweep of their arms outward against the facial anatomy of their boy detractors or challengers, and to manifest the beginnings of ungainliness and the awkward age distinctly sooner than boys. Fortunately for the latter's prestige and for their dawning masculine pride, the tables are eventually turned and their physical and muscular superiority becomes as obvious as it is welcome to boys who have endured in silence, and usually in mystification, the patent superiority of their plaguing and harassing sisters.

While every individual appears to be a law unto himself, as far as his rate and ultimate achievement of growth are concerned, it is possible to generalize sparingly about growth patterns and tendencies. On the whole, coming events seem to cast their shadows before to the extent, at least, that a child who grows rather slowly during the preschool years will continue to grow slowly and evenly throughout the school period. Similarly, a child who grows fast during the first five or six years, and who may be a full head taller than some of the other children when he enters the first-grade room, will be likely to maintain his advantage in height during the next few

years. Adolescence will find the former individual, other things being reasonably equal, to be still growing slowly, and the latter to be still growing rapidly; and when both have achieved maturity, the one will be short, the other tall.

STRIKING INDIVIDUAL DIFFERENCES IN GROWTH

The fact should never be forgotten that children of the same age vary widely in physical stature and weight. It is this fact that vitiates the still commonly used height-weight tables that are found on the office walls of many elementary schools. Reference to one of the most widely used of these—the Baldwin-Wood Weight-Height-Age Table for Boys—indicates, for example, that a six-year-old may vary normally between forty and fifty inches in height, and between thirty-six and fifty-seven pounds in weight, while a six-year-old girl may vary between thirty-nine and forty-seven inches in height and thirty-four and forty-nine pounds in weight. In other words, one child of six may be only three-fourths as tall as another of the same age, and may weigh less than two-thirds as much. At the other extreme, still more strikingly, a thirteen-year-old boy may vary in height between fifty-two and sixty-seven inches, and in weight between sixty-four and one hundred and twenty-four pounds, the smallest thirteen-year-old being still only three-fourths as tall as the largest one, and only about half as heavy.

Age-height-weight tables serve only the statistical purpose of picturing the average child; if they are recognized and used as such, they have a real place. When, however, attempts are made to fit a given individual child to them, the results may be extremely disconcerting to all concerned. If, for example, a stocky, heavy-boned child is found on the tables to be 10 per cent overweight, or a slight, small-boned one is found to be 10 per cent under, it is an extremely dubious policy that prompts teacher or nurse to label the first child overnourished, or the second one undernourished. For his particular frame, each of them may be in an optimum condition of nutrition and may be enjoying the very pink of health.

In most of our American schoolrooms, particularly in metropolitan areas, there may be a dozen or more national or racial groups represented among the children enrolled. These types extend all the way from the slight Mediterranean peoples, through the stocky native Americans, to the heavy Scandinavians. To attempt to judge the condition of health and nutrition of all these varying ethnic

types against a scale of average computed for a limited geographical area is patently unsound and misleading. The only scientific way to determine the adequacy or the inadequacy of a child's nutrition is to let a competent pediatrician judge it in terms of size of bones, condition of tissues, firmness of flesh, subcutaneous fatty deposits, etc. Only when these revealing things are known can the normal weight for a given individual be estimated.

The extent of malnutrition among children of school age has been variously estimated by school health workers in various parts of the western world. It is probably safe to conclude that at least 10 per cent of school children are recognizably below par in their nutritional status, and that an additional 5 per cent, at least, are so poorly nourished as to be in definite peril. Even with the spread of welfare methods and organized charities in recent years, these conditions among children have not been wholly eliminated.

In the present volume, we are not concerned with the causes of malnutrition so much as with the effects of it upon child behavior. We shall merely point out that defective nutrition may result from a too-limited or poorly balanced dietary, defective assimilative powers in the cells, excessive heat loss from the body, the accumulation of fatigue toxins from excessive work and of disease toxins resulting from long struggle between the child organism and invading microbes, insufficient sleep and rest, and the common focal infections of childhood. Any one of these may be correlated causatively with retarded physical condition and generally poor health.

THE TOLL OF CHILDREN'S DISEASES ON THE BODY

The so-called children's diseases have a profound effect upon the growth and health of the child's body. You will note among your children some who have spent many precious months of their brief lives in deadly scrimmage with the microbes of disease. Their thin faces, poorly developed bodies, and general under-parness physically bear mute evidence of the struggle that even now may or may not have been completely won. So do their twisted legs, their stooped shoulders, their dim vision, their dull hearing, their lusterless eyes. You will note the occasional absences from school of a good number of children who are "at home coming down with," in the full grip of, or "getting over" one or another of the wretched enemies of childhood that masquerade under the name of the children's diseases. Some of these maladies—like mumps, chickenpox and

measles—are rarely serious and are less likely to have unfortunate aftereffects. Others—like scarlet fever, diphtheria, and poliomyelitis —are both serious in themselves and likely to have grave complications that may interfere markedly with subsequent normal growth and health.

By no means are all of our schools, or probably even the greater part of them, properly set up to guard the health of their children. School health work and school medical inspection and nursing have long since demonstrated their value as preventives in communities where they enjoy adequate support. In other communities, they are still either relatively non-existent or else are so meagerly supported that the results they achieve are woefully slight. Definite health teaching, which is fairly commonly carried on in the primary grades, frequently disappears as a recognized subject in the intermediate ones. We shall return to this matter of adequate health supervision and training in the schools somewhat later in this chapter.

Teachers themselves are often unfamiliar with effective methods of teaching health, and not infrequently manifest in their own personal hygiene the reverse of good health practice. In general, teachers who are normally health conscious and who are solicitous for the safeguarding of their pupils' health will strive constantly to keep their own at as high a peak as possible. They will also learn to detect in their children incipient signs of emerging illness or disease. Among the symptoms they need particularly to be always on the watch for in their children are the following:

Nausea or vomiting	Fever
Discharging ears	Skin rash
Running or red eyes	Diarrhea
Sore throat	Swollen neck glands
Headache	Persistent cough
Internal pain	Paleness
Infected tonsils	Abnormal fatigability

When any of these conditions is observed in a child, he should immediately be referred to the nurse or excluded from school. His continued presence among the other pupils will subject them all to needless risks of contagion. This is notably the case with respiratory infections, which are responsible for more loss of school time and for more impaired health during the cold months of the year than all the other schoolroom diseases combined. Through droplets from

an infected throat or nose, expelled into the air by the sufferer, and through the interchange of materials among infected and non-infected children in the close association of a schoolroom, and because of the low resistance of all children to germ invasion of the respiratory tract, almost inevitably a single child with a cold may, theoretically at least, and often actually, infect most of his mates within a few hours.

A typical example of the long-time effects of the children's diseases upon an individual child follows:

Mary, 7 years of age, and in the second grade, developed a hard cold in mid-November. She was sent home from school after a prolonged coughing spell. Streptococci were found in her throat, and for a week she was a very sick child. After convalescence, she returned to school, still weak and wobbly but definitely on the mend. Within ten days, there being then a mild epidemic of chickenpox in the community, she contracted a rather severe case of it, and was ill for a month. Her resistance had evidently been considerably lowered by the bout with the streptococci, and when the chickenpox microbe assailed her, there was no adequate defense. Returning to school, Mary was weak, pale and had lost five pounds in weight. The physician advised only half-day sessions for her during the next three months. Not until May did she begin to look like her former self, and to take part again in the full activities of the class. She was retarded a half year and had not achieved her expected normal weight the following September. For fully two years her growth curves trailed well below expectation.

TEETH, TONSILS, ADENOIDS, OTITIS

Prominent among abnormal factors that underlie poor health and deficient physical development in children are focal infections in the mouth, throat, nose, and ear. Drainage from carious teeth is perhaps less dangerous than the slow and persisting seepage from infected tonsils and adenoids. There is good medical evidence, however, to indicate that the vast majority of children have one or more defective teeth. Resulting effects upon the individual whose mouth has dental caries include diminished chewing surface, with attendant poorer mastication, seepage into the blood stream or mechanical entrance into the stomach of pus from decaying teeth, resulting in the transfer of toxins to any organ of the body; the establishment of portals of entry, for any germs that may be clinging about the mouth, into the cavities, where they may propagate and

penetrate into the blood or digestive tract; pain and reflex nervous disturbances, especially from impacted or aching teeth, with attendant restlessness, malaise, and possibly delinquent or pseudo-delinquent conduct. Malnutrition may result from the toxemia, since the cells of the body are rendered partially unable to assimilate food. Retardation may result, because the brain is rendered likewise partially impotent to assimilate proper nutrition from the pus-containing blood stream.

The two faucal tonsils, situated on either side of the root of the tongue, were presumably designed by nature to enmesh disease germs so that they could not get into the lymphatics and the blood. Normally enlarged in childhood, these structures very often not only fail in their natural function but become themselves areas that harbor and nurture the very microbes they were designed to arrest. When thus diseased, they present to the eye of the observer, instead of the normally smooth, pinkish oval masses of healthy tonsils, notable enlargement and spongy red areas, possibly with white spots interspersed. Such tonsils are definitely diseased, and may, like decaying teeth, serve as portals of entry and distribution for all kinds of microbes and their toxins throughout the system. Children with diseased tonsils are, if the condition has persisted for any extended length of time, definitely undernourished, pale, anemic, and tend to be low in general vitality.

When acutely and chronically inflamed, tonsils should be removed, for they can no longer serve the body helpfully. After their removal, the child, if he has not been reduced too far physically and intellectually by long seepage from them, will ordinarily show marked gain in both categories. He will also be less susceptible subsequently to respiratory diseases that may bombard him. Healthy tonsils, though normally enlarged in early life, ordinarily shrivel and disappear by the end of childhood.

The adenoid tonsil is located behind the soft palate, near the entrance to the nasal pharynx. Like the other two tonsils, the adenoid is lymphoid tissue, supposedly intended by nature to arrest and to trap invading microbes; like them, however, it, too, not infrequently becomes diseased, and nature's purpose is accordingly sidetracked. The adenoid tonsil is normally enlarged, even when it is healthy, and hence, since the throat of a child is quite narrow, it may easily obstruct the passage from the nose down into the throat. When it is diseased, it spreads still farther across the narrow chasm and makes nasal breathing impossible or very difficult. The characteris-

tic mouth breathing of a child with diseased adenoids renders such an individual easy to identify in the schoolroom. Normally the adenoid tonsil is absorbed by mid-adolescence. If it is diseased, absorption of it may cause its toxins to be transferred into the system, to generate difficulties later on. Surgical removal of diseased and deteriorating adenoids is always indicated.

While it is, of course, wrong to blame all physical and mental deficiencies on diseased adenoids, the fact remains, attested by many medical observations, that not only are diseased adenoids commonly found associataed with retarded growth in height, weight, and chest girth, and with pigeon breast, crooked teeth, nasal voice, and with higher susceptibility to respiratory diseases, but also that there may be and often is a similar correlation between a diseased naso-pharynx and mental obtuseness, school retardation, nervousness, and general apathy. Adenectomy frequently corrects or greatly improves both the physical and the intellectual deficiencies of a child to a remarkable degree. Better sleep becomes possible; more hygienic nasal breathing replaces the difficult, heavy mouth breathing; the tonal quality of the voice improves as the phonating chambers are opened up; and the listless, dull expression of the face and eyes yields to the alert, wide-awake, and animated behavior that should be always characteristic of childhood.

Otitis, or middle-ear disease, is extremely likely to accompany or to follow any diseased condition of the respiratory tract. The eustachian tube opens up a wide but very short path from the naso-pharynx straight into the middle ear, and a continuous membrane lines both. Thus, any germs propagating about the tonsils or adenoids may readily make their way up to the ear. Furthermore, when active germs of any of the respiratory diseases are present about the mouth and nose, they, too, may readily pass upward to the same region. The pressure resulting from the accumulation of pus and toxic materials in the middle ear may cause a discharge through the eardrum to the outside ear, or, if the pressure is great enough, may actually cause the drum to erupt. Discharging ears should indicate to any teacher that there is pus in the middle ear, and the probability that it is being originated in the throat. If drainage is not maintained, with aseptic treatment, the pus may back up and cause infection in the mastoid region. Cotton in the outer canal of a child's ear ought to arouse the suspicion that home medication is being given, with all the attendant likelihood of dirt's being introduced into the ear externally. Moreover, a child with discharging

ears is a potential menace to the health of other children, since the pus exuding may contain virulent microbic material.

Middle-ear disease, or otitis, is likely to end in partial or total deafness if the condition is allowed to continue uncorrected. The scholastic and social status of a hard-of-hearing child in your room is bound to suffer, since such an individual lacks the impetus and the capacity for the normal give-and-take of classroom and playground. Psychological reverberations, such as loss of self-confidence, introversion, inferiority feelings, "queerness," retardation, and discouragement are logical sequels to such a condition. Probably not less than 50 per cent of the 100,000 or more totally deaf people in the United States might not be deaf at all if adequate care had been given to their ears, noses, and throats when they were young. Children in whom these regions have been kept healthy have a much better chance in the world than do those in whom they have been neglected. They are absent less from school, possess better general health, suffer fewer diseases and complications, and exhibit a decidedly superior picture of growth and development.

SOME PHYSICAL HAZARDS OF SCHOOL ENTRANCE

For many if not most children, school entrance comes as a definite physical hazard. There are three reasons for this. First, before school entrance, the child has been relatively free and unrestricted in his activity. He could come and go, within the limits of the parental approval, as he pleased. He could sit, walk, run, lie, play, manipulate, throw, and vocalize to his heart's content. Life was untrammeled and uncircumscribed. Now, however, the situation is changed radically. He can no longer regulate his own acts independently of others; he must come, but he cannot go; he may express his motor impulses only within certain approved limits; life begins to be sharply regimented and controlled by others.

In such changed circumstances, not only does the personality have to undergo adjustive modification, but new physical habits and controls have to be superimposed upon the unrestraint and self-determination of yesterday. From a largely outdoor, porch, or backyard habitué, the child becomes largely an indoor, schoolroom, corridor habitué. Sunshine and the free air of preschool days yield place to refracted light and to the surcharged and often vitiated air breathed by thirty or forty other pairs of lungs. New habits of safety, community hygiene, and deportment replace the old familiar

and somewhat loose and easy ones of more simple home life. The result of all this transformation in the general environment that occurs at school entrance is a definite, though fortunately temporary, shock to the health, stability, and growth potentials of the child.

Second, coupled with this physical hazard are those threats to health that abound in any assemblage of young children who must be closely and intimately associated during long hours of every day. The young school entrant, for years protected from exposure to disease germs by the relative isolation of home and by parental solicitude, is suddenly projected into the midst of a score or more children, each a potential or actual carrier of microbes, and all weak in their powers to ward off germs as they pass indiscriminately from child to child. The schoolroom, unless constant care is exerted by watchful school health officers and workers, becomes thus easily the meeting place and transfer point for various types of germs, and every child is exposed to them all.

Third, the unsatisfactorily ventilation, the excessive humidity, and the high temperatures frequently found in our modern steam-heated buildings during the cold season of the year furnish a culture medium in which microbes are likely to flourish. If we add to these conditions the necessity for much focusing of the delicate ciliary muscles of the eye upon close work, for prolonged attention to the development of the smaller muscles, or to the finer movements of the larger muscle groups, and for the maintenance of the rudiments, at least, of good posture, we can better appreciate the fact that when the shadow of the schoolroom falls across childhood, it bears within its penumbra definite hazards to the health and normal growth of every child encompassed within its range.

The teacher must remember that the primary child has only a limited amount of strength and vitality. As we have implied, the heart of the young child is fairly small in relation to the bore of his arteries, and consequently we have the condition of a relatively small heart pumping blood into relatively large arteries. The lungs in early childhood are small and shallow, and we have the additional circumstance of relatively small pulmonary areas absorbing relatively small amounts of oxygen and contributing it to the blood in quantities far below what will be demanded in later childhood after the heart has enlarged and the blood pressure has mounted.

These facts indicate that there is always grave danger of strain and injury to the vital organs of the body if the child is allowed to

follow too strenuous a program of activity in the primary grades. Frequent rest periods, interspersed among brief periods of physical and motor activity, are required if child health is to be safeguarded during the early years of school. Periods of mental activity, too, ought to be short in order to prevent undue accumulations of fatigue toxins for a tolerably sluggish blood stream to handle.

For the reasons cited in the preceding paragraphs, school entrance, with all the new demands it makes upon the physical system, is a time in the life of the child that is fraught with distinct difficulty, not to say actual hazard, from the standpoint of continuing health and vigor.

NEW SOCIAL ADJUSTMENTS AT SCHOOL ENTRANCE

Somewhat less related to the physical health and development of the child entering school, but definitely related to his mental health, is the necessity to make all manner of new social adjustments that were not called for or required in the more solitary preschool life he led at home. First of all, of course, he must learn to adjust to the teacher herself. Here is a new adult in the near vicinity every minute of the day, to be studied, appraised, appeased, pleased, and taken into marginal account at all times. It may well be that his mother, whom he has heretofore learned to evaluate with juvenile shrewdness, may be a quite different type from this new personality, and consequently that his general background of adult reference and interpretation is inadequate to provide him a satisfactory basis for the evaluation of his teacher. His mother may have permitted him to ride more or less rough-shod over her and the household; or she may have babied him and overprotected him to the point almost of emotional extinction or suffocation. In the new and unfamiliar environment of the school, he finds all his expectations blocked and his nascent securities overturned. New scaffolding must be built and new interpretations discovered.

To a score or more of other child personalities, too, he must learn to adjust. He can no longer be the center of the stage, but must share it with others, or must even on occasion leave it completely for the wings, or even for the spectator seats. He must submit himself to the vagaries of the group, and learn to take as well as to give. He must find a way to fit himself agreeably and securely into the jumbled pattern of juvenile life in the schoolroom. The beginnings of socialization must be achieved in the earliest days of attendance,

and as the months and the years pass his degree of socialization must be constantly deepened and expanded. Unless he is able to make all these adjustments fairly satisfactorily, he will suffer in mental health progressively as he moves up the school years.

CHILDHOOD A TIME OF BIG MUSCLE GROWTH

Notwithstanding the circumstance earlier pointed out that the younger school child has only a limited amount of strength and energy over and above that required to keep his vital organs in good condition, it is unquestionably nature's plan to urge her child increasingly to develop and to protect its neuromuscular mechanism. Strong evidence of this design may be noted in the tremendous increase in muscle weight that takes place during the growing years. At birth, the total muscle weight of the organism is roughly 25 per cent of the gross body weight; by the close of adolescence, this ratio has increased to approximately 50 per cent. More specifically, the muscles in a newborn weigh probably no more than two pounds; in a twenty-year-old, they weight somewhere in the neighborhood of seventy-five pounds for the average male.

This phenomenal increase in muscle bulk can mean but one thing; namely, that childhood and youth is a time for big muscle growth. Even by the time an average boy completes the sixth grade of school, he possesses a musculature weighing close to forty pounds; this is in sharp contrast to his muscle weight at six years, which was approximately twenty pounds. In other words, along with increments of growth in other areas, the elementary-school boy has to grow twenty pounds of muscle in six years. So must the girl, approximately.

IMPLICATIONS FOR EDUCATION

Two practical implications for education should not be lost sight of in this connection. In the first place, muscles do not grow much by sitting still. You will observe constantly among your pupils the eagerness with which they tumble out of the schoolroom at recess time, and the abandon with which they throw themselves into every conceivable sort of muscular exercise and contest when they reach the playground or even before they do! School hours, at best, repress and hold in check this bubbling energy that is clamoring for expression. Only in the free and untrammeled surroundings of the play

yard can the big muscles get the pull and the pound and the strain and the lift that they crave and must have if they are to grow vigorously.

A second clear implication from the nature of muscle growth during the elementary-school years is that the whole period is a physically restless one for the child. It is probably next to if not entirely impossible for an eight-year-old boy to sit quietly at his desk for more than two or three minutes at a time. The impulse to move about, to change position, to hitch, to loll down until the body's weight rests on the tip of the spine and the back of the neck (!), cannot be held long in subjection. Teachers are prone often to admonish their pupils to "sit up and be quiet," quite forgetful of this fundamental dynamism of growth and big muscle pull. One teacher commonly had recourse to a pin-dropping absurdity, in order to compel her children always to be quiet. At any unannounced moment, she might drop a pin to the floor, and if the children were not immediately aware of it and did not instantaneously restore their positions like so many little wooden images, they were roundly scolded and warned against subsequent ignoring of the call to order!

Teachers in any grade—for growth transformations are proceeding at every age level—must expect to find children restless and more or less noisy. They will be found to lean on their elbows, to cross and recross their knees, to half sit and half lie over their desks, to sit on one foot for a while, and then on the other, to thrust their feet far out into the aisle, to elevate their books at various dizzy angles as they ogle them, to drum with fingers and tap with toes, and to manifest all manner of gyrations of muscles as they attempt to find body ease and comfort. These exaggerated and often grotesque actions are not to be attributed to mental or moral obliquity; rather, they are to be understood as quite normal and inevitable reactions to internal stimuli that drain into most of the muscles of the body.

THE THYROID AND OTHER DUCTLESS GLANDS

The science of endocrinology is only partially developed at the present time, but enough is known about the endocrine glands to suggest the profound influence they exert over the normal growth and development of both physical and mental functions in the child. Unlike duct glands, such as the salivary glands in the mouth, the

perspiratory glands in the skin, and the gastric glands of the stomach, the endocrines possess no ducts. The powerful hormones they secrete are absorbed into the blood stream, where they exert tremendous influence over various functions and processes going on in the organism. These glands include the thyroid and parathyroid, the pineal and thymus, the pituitary, the adrenal, and the gonads or sex glands. We shall refer very briefly to each of them.

1. The Thyroid Glands

Located on either side of the neck, these two glands lie near the larynx. The thyroid hormone, which they secrete, is known to be potent in regulating the rate of metabolism in the body. If the amount of thyroidin absorbed by the blood is optimal, the child will grow normally and harmoniously. If, however, there is a condition of overactivity (hyperthroidism), or one of underactivity (hypothyroidism), growth may be sharply modified and the victim may present characteristic symptoms. Hyperthyroidism stimulates too-rapid metabolism, with the resulting excess consumption of energy, rapid heartbeat, jumpy nerves, and usually excessive thinness of the body. Hypothyroidism, on the other hand, may, if the condition develops early, retard metabolism, delay the normal time of the child's learning to sit up alone, to walk, to talk, and to coordinate his muscles. Slow and phlegmatic, such a child may also become dwarfed and unsymmetrical. If the condition persists unrecognized for too long, and if steps are not taken medically to correct it, an unfortunate condition known as *cretinism* may shortly result. In this, the child grows disuniformly, exhibiting an abnormally large head, a shriveled, misshapen, or dwarfed body, and potential feeblemindedness. For hyperthyroid condition, surgery is usually needed, a portion of the thyroid being extirpated in order to reduce the amount of the secretion and so restore the normal control of the metabolic rate; for hypothyroidism, medical prescription of commercial thyroid preparation, administered orally, may often supply the organism with an artificial complement for the natural secretion that is lacking, and so stimulate the proper metabolic rate.

Between the two extremes of hyperthyroidism and hypothyroidism there are observable among school children varying intermediate degrees of abnormal thyroid activity. While only the physician can properly diagnose a thyroid condition, teachers may suppose that the occasional child who is slow and sluggish and painfully overweight, on the one hand, or that the thin, superactive, high-strung

child, on the other, may both be victims of abnormal thyroid or other endocrine conditions, which medical science could and ought to relieve. Inasmuch, however, as other factors, such as diet, heredity, and training may profoundly influence weight, ambition, and nervous control, the layman teacher must avoid jumping to the conclusion that every child atypical in stature or in kinetic behavior is a specimen of malfunctioning endocrines.

2. The Parathyroids

The parathyroids are four very small glands attached to the thyroids. They appear to have a dual function; one being to regulate and control the deposits of calcium that make strong teeth and bone; the other, to promote emotional stability in the child. Too much secretion from these glands tends to make a child sluggish and passive; too little may make him tense and nervous. Factors of training and conditioning, of course, play large roles in the emotional reactions and stability of children; normal secretion from the parathyroids probably makes it easier to develop adequate emotional control and to maintain keen and alert interests.

3. The Pineal and Thymus Glands

The pineal and thymus glands may be classified together because they are typically children's glands, and normally suspend their functioning after the onset of adolescence. They are believed to be responsible for holding in check the development of the sex glands and the reproductive system until the maturation of the organism is ripe for it to subtend these functions. In the case of a few children who manifest premature arousement of the sex interest and function, there is unquestionably a deficient secretion of the pineal hormones. Such a condition may be inferred in boys who undergo the pubescent changes when still only six or seven or eight years of age, and in girls who begin to menstruate at a similar age. On the other hand, prolonged or overactive pineal secretion may delay the coming of the pubescent changes, causing children to remain prepubescent until the middle or late teens. Abnormal and premature sex explorational activities, when they are noted in a child, may be supposed to stem from too early atrophy of these glands, although here again, as in the case with the thyroid and parathyroids, the effects of training, example, overstimulation, and the like, may be the conditioning factors in the appearance of such early sex interest.

4. The Pituitary Gland

The pituitary gland, located like the pineal in the skull, lies near the base of the brain. It has numerous functions that have been differentiated experimentally and clinically. Excess secretion of pituitrin by the anterior lobe of the organ probably causes gigantism and extreme body height; deficient secretion has the opposite effect of producing dwarfism. The giants and the midgets whom one occasionally sees on the streets and in circuses and amusement parks are victims of abnormal functioning of the pituitary gland. The posterior lobe of this gland plays a role in the metabolism of the body, underactivity favoring the depositing of excessive fatty tissue, and the consequent lassitude and functional laziness that usually accompany such extreme body weight. Failure of sex maturation is ascribed also to hypoactivity of the posterior hormones. Hyperactivity of these hormones will, of course, foster the opposite of these characteristics. Other secretions of both lobes of the pituitary appear to possess such widely different body functions as control of skeletal growth, stimulation of secretion by the mammary glands, regulation of sugar content in blood and urine, and some control of thyroid activity.

5. The Adrenal Glands

The adrenal glands lie at the apex of each kidney. They secrete two essential hormones. One of them, called adrenalin, when manufactured excessively, causes many of the internal changes in the organism that are associated with emotion. These include increase in the heartbeat and blood pressure, release of liver sugar into the blood in times of emergency, and improved muscle tone. Underfunctioning of the adrenals has the opposite effect of diminishing heart action, increasing fatigue and lassitude, and, in extreme cases, leading to collapse and heart failure.

Another hormone secreted by the cortex of the adrenal glands profoundly affects the maturation and development of the sex function and the reproductive system. Bearded boys of seven and deep-voiced, hairy-faced girls of the same age are very likely the victims of excessive cortin secreted by these glands. It is certain that when the retarding action of the pineal and thymus glands is withdrawn, it is the adrenal cortin that takes over stimulation of sexual development in the individual. In the process of transfer of control, there may be many abnormal effects, especially if the cortin appears too early or too late, or if it is secreted too profusely or too sparingly.

6. The Gonads

The gonads, or sex glands, are primarily concerned, of course, with reproduction. They produce the sex cells themselves, as well as such secondary sex characteristics as pubic hair, full breasts, and broadened pelvis in girls, and in pubescent boys facial and pubic hair, deep voice, and the masculine body. Removal or atrophy of the sex glands of a boy results in a loss of vitality and drive, flabby muscles, and effeminate voice and behavior; loss of the hormones by a girl deprives her of her femininity and tends to favor the production in her of masculine traits, such as a hairy face and a heavy voice. Normal functioning of the gonads awakens sex appetite and desire, prepares the reproductive organs for their dramatic role, and promotes the achievement of full muscular and emotional maturity.

It must be apparent to the student that the endocrine glands comprise a *system,* all parts of which work in harmony with all others. When this system is in proper integration, there results a balance among the glands comprising it that is essential for the normal growth, development, and regulation of the body functions, as well as of much of the emotional life. When they are not synchronized, on the other hand, and a condition of imbalance among the endocrines is introduced, dangerous and often disastrous results may ensue. Unfortunately, while our knowledge of endocrinology is advancing constantly, much of the information we have regarding the glands is extremely sketchy and incomplete.

A DEMONSTRABLE PSYCHO-PHYSICAL CORRELATION

Brightness and mental keenness in children appear to be correlated to a slight degree with good physical condition; dullness and mental passivity with the opposite. Not a few people seem inclined to expect the bright or gifted child to be frail and ghostly, to be possessed of poor health, to be nervous and hypertense, and to be doomed sooner or later to nervous breakdown or some other mental or physical disaster. "Braininess" and "head work" are adjudged by such observers to be avenues of escape into which physically under-par children often enter to compensate for their inability to compete with other children on a physical level. And once having entered them, to make matters worse, the child is expected to be extremely likely to overdo on the intellectual side and become sick. Careful observation, however, does not seem to bear out this opinion.

You will find it interesting to implement your own thinking in this regard by studying the brighter-than-average children in your school. You will shortly discover that they are, on the whole, the children who are healthier, physically more perfect, less puny and sickly than those on the other side of the median. There will be, of course, individual exceptions, but in general it will be found to be the mentally inferior who are the physically inferior. It is they who are likely to have the greatest number of carious teeth, to show the poorest nutrition, to include most of the mouth-breathers, the pigeon-breasted, and the anemic. It is they, too, who are often the first to "take" any of the current children's diseases, who are the slowest to recuperate from them, who are absent most from school because of colds and other distempers, who are the least alert and ready for anything. Bright children are a little taller, heavier, and healthier than dull ones. Which is cause and which is effect it may be difficult to determine; the correlation, however, is there, to a mild degree, and physical robustness and mental robustness may be observed to go hand in hand among your pupils.

While the degree of physical superiority manifested by bright children over duller ones is not, of course, extremely great, it is significant that the relationship exists and that it may be observed among children at every level of the elementary school. After the coming of adolescence, this relationship has been found to diminish, notably in such areas as height and weight, bone development, chest girth, and lung capacity.[1] Thereafter, no significant relationship between physical superiority and mental superiority can be demonstrated.

SOME SPECIAL SCHOOLROOM PROBLEMS OF DEVELOPMENT

1. Fatigability

As we have indicated in a preceding paragraph, the years from six to twelve are years of much restlessness and uneasiness. It should also be pointed out that these years comprise a period of rather high fatigability, particularly in the performance of mental work. While children possess a good deal of physical strength and motor power, they tire quickly when constrained to keep at mental work for too long a time. Their span of attention is not wide, and their

[1] E. M. Abernethy, "Relationships between mental and physical growth," *Child development monographs,* vol. 1, 7 (1936), 80 pp.

impulses tend rather in the direction of physical and muscular expenditure than in the more restricting one of intellectual effort. Growing bodies are restless, and it is irksome for children to hold them long in subjection. Even when engaged upon tasks for which they feel keen interest, they are likely to intersperse frequent moments of physical play and abandon among their periods of mental activity. Boredom and ennui come readily, and children often manifest a discouraging casualness and disinterest that to the naïve adult observer appears to be quite inexplicable. Here is another situation in which it is confusing to attempt to estimate juvenile behavior traits upon standards of adult preconception and practice.

The modern schoolroom, particularly at the primary level, endeavors to adjust its physical surroundings, its materials, and its activities to the known restlessness and easy fatigability of children. Movable furniture has replaced the traditional straight rows of alternating desks and aisles, particularly in the primary grades; easels, pots of paint, plastic materials, work tables, construction blocks, and closets filled with absorbing work and play materials supplement preprimers, primers, and readers.

A survey of the program and equipment of first-grade rooms in fifty-nine large cities of the United States yielded the following partial list of such activities and available materials: [2]

play house corner
curio cupboard
pets
pet store
building blocks
colored cubes
easels, paints, brushes
clay
crayola
puzzles
riddles
constructional materials
manipulatory A B C's
wood
tools
hammer, saw, plane, vise
paper and cardboard
picture books
stereoscopes
charts
fish pond
reading workbooks
trips
peg-and-post form board
peg-boards, colored pegs
colored beads
jig-saw puzzles (9 to 20 pieces)
rubber ball
doll, with wardrobe (Jerry and Alice)
doll carriage
nursery rhymes pictured
mounted pictures
toys

[2] L. A. Averill, *School readiness, school admission and first-grade objectives* (Boston: Massachusets Department of Education, 1945).

games
dramatic play
sharing experiences
rhythm games and play
story hour
entertaining others
making booklets, pictures
scrapbooks
planting seeds
caring for flowers
dishes
sweeping set
laundry set
small tables
chairs
play screen
name cards
sand table
mounting leaves, flowers
classifying activities
health charts
vocational play
posters
library nook
hobby corner
plants
blocks
imaginative phone conversation
composing letters
writing "newspapers"
planning activities
bulletin board
piano
victrola, records
thread, needles
blackboard
movies
weather charts
thermometer
decorating room for party
describing activities
telling and retelling activities
rhythm band
singing
naming activities
flag
listening activities
memorizing rhymes
making original verses
puppet show
making stuffed animals
counting activities
aquarium
herbarium
little theatre
pre-primers
primer typewriter
printing set
boxes
duplicator
matching activities
identifying activities
copying activities
van truck
wheelbarrow
garden tools
tambourines
cymbals
sleighbells
slide
flash cards
weaving
touching activities
food charts
arranging school furniture
conversation
calendar

A primary classroom equipped for such a program as is made possible by the items listed above will provide excellently for the children's physical restlessness, their meager attention span, their ready fatigability, and the consequent need for frequent change in the nature of the learning activity.

2. An Adequate System of Health Protection

By its very nature the school presents certain hazards to the health of its young patrons. By bringing together large numbers of children of all types, and by keeping them in close indoor quarters, it renders easy the interchange of disease microbes among them. Poor ventilation and overhigh temperatures dry out the membranes of the throat and nose; excessive humidity prevents proper skin ventilation; too much and too long-continued near work makes for eyestrain and headache. These undesirable conditions are more or less to be taken for granted in most schoolrooms.

On the other hand, the school presents an almost ideal opportunity for the safeguarding and protecting of child health. Paradoxically, if the school situation provides hazards by bringing together many children, it provides also an easy and ready setup for maintaining systematic oversight of their health, for detecting early signs of symptoms of disease, for excluding those who are ill or carriers, for periodically inspecting the health and physical status of all, and for counseling with parents in order to engage their fullest cooperation with physicians, nurses, and available clinics. Without much question, these opportunities for constructive health supervision far outweigh the recognized health hazards attendant upon going to school. They are, however, *opportunities,* and they may or may not be seized upon by the school and made fullest possible use of.

An adequate system of health protection requires, first of all, a sufficient staff of school physicians and school nurses. The function of the former is to carry on medical inspection and to recommend to parents indicated procedures to improve the physical condition of their children; the function of the latter is to maintain day-by-day vigilance through routine health supervision of every classroom and of every child in each, and through home visitation to interpret to parents school findings, recommendations, and procedures with respect to their individual children. If she has no more than one thousand pupils in her charge, a nurse can under ordinary conditions carry on her schoolroom work and her home visitation acceptably. If she is burdened with numbers much in excess of this maximum, she will be greatly handicapped in the quality of her work, and the school health service will be correspondingly lessened.

The value of an alert and determined system of school health supervision is well illustrated in the following case:

Helen, 8 years of age and in the third grade, was absent from school on an average of two to three days each week, suffering from tonsillitis. This was the story from November until mid-winter, despite the fact that several notices were sent home by the school urging that Helen's tonsils be removed. Each time the school physician examined Helen's throat, however, he found the tonsils still there. The first visit of the school nurse was indecisive; so were the second and third. The mother could not bring herself to the point of agreeing to a tonsillectomy, and precious time was lost. When the nurse called on the child's father and urged him to take action, she found him obdurate and to a degree surly about the whole affair. He did not believe there was anything wrong with Helen's throat, insisting that when he had himself been in school years ago, nobody ever heard of tonsils and tonsillectomies. He recommended pointedly that the school should take care of the girl's mental development and allow him to take care of her health. The thing hung fire for two months, during which time the nurse paid half a dozen visits to the family, and the condition of Helen's throat worsened perceptibly. Finally, irked by the continuous bombardments of physician, nurse and teacher; and probably, too, beginning to be actually alarmed at the child's condition, the father gave his consent to the operation, which was shortly performed by the family physician. By the opening of the spring term, Helen was beginning to show improvement in her physical condition. Her sallow cheeks were slowly deepening in healthy color, and her thin body was gaining in fatty deposit. The improvement continued almost by leaps and bounds during the long summer vacation, and when she returned to school in the fall Helen was as alert and healthy a child as any of her mates.

3. The Teaching of Health

Much of the success of a program of health supervision in the school rests upon the day-by-day teaching of health and health habits by the teacher. For a good many years this has been done acceptably in the primary grades, where teachers find it easy to interest children in such matters as the food they eat, the number of hours they sleep, the amount of milk they drink every day, and the like. First-graders and, to a somewhat lessened degree, second-graders, enjoy the coloring of health posters, the dramatization of health stories, the daily repetition of memorized creeds and jingles, the daily round of teacher inspection, and the keeping up to date of their individual health charts. Health clowns and health rhymes and health playlets appeal to very young pupils and afford in themselves

sufficient motivation to insure a derived interest in health practices and habits.

Beyond the primary grades, however, it is quite another matter. Eight-year-olds, and increasingly ten- and twelve-year-olds, are too sophisticated and matter-of-fact to be convinced by the simple devices that satisfied them earlier. With increasing strength of body, with growing physical endurance and prowess, and with their insatiable interest in strenuous expenditure of their exuberant energy, they are not inclined to feel any very compelling concern for routine health teaching as such. Builders of curricula have been slow to realize the importance of hygiene in the intermediate and upper grades, slow to insist upon the availability of attractive materials.

Throughout these grades, of course, it is important that the habits formed in the primary grades shall be continued and adapted to the widening needs of the children. But older children are approaching pubescence, and their social natures are evolving rapidly. Here is the time for the emphasis in health teaching to be removed from personal habits and to be placed upon community living, especially upon community health and hygiene. Introduced to problems of clean foods and markets, clean milk, pure water supply, efficient garbage disposal, control of insects, immunization, and general home and school and community sanitation, children in these grades will be establishing lifelong health habits and attitudes that will be of major importance when they come in not too distant years to be the citizens and the voters in control of such matters. In many ways the adequate teaching of community health and sanitation in grades four, five, and six presents the most practical and fascinating of all curricular content at this level.

4. School Feeding

This is a problem that has assumed considerable importance in recent decades, as inadequacies of dietary have been shown to exist in rather sizable sections of the population, and especially among those who live at the margins of our economy. Parental ignorance and malpractice, parental absence from the home during working hours, low income and high costs of food—all these things operate to endanger the nutritional status of growing children. Probably from 10 per cent to 15 per cent of children in our American schools are subsisting on an inadequate dietary. For such children, and particularly for the youngest among them, school feeding has come as a beneficent harbinger of hope, greatly reducing anemic conditions

resulting from persistent malnutrition, and removing to some extent those pretubercular hazards that have always impinged upon marginal children.

Various objections have of course been made to school feeding programs. There is the age-long cry of "paternalism," of encroachments by the school upon the rights and prerogatives of the home; there is the cry of expense involved in the maintenance of the programs; and there is the alleged consciousness of inferiority and chagrin that school-fed children must supposedly feel. These and all other arguments against school feeding programs must be interpreted and evaluated in the light of the unnecessary illness, disease, and premature death that stalk the footsteps of malnourished children. Balanced against these eventualities, the arguments against assumption by the school of this added service to childhood shrink into insignificance. Everybody would agree that, ideally, a child's health and nutrition are indeed matters that devolve properly and indisputably upon the home. Until such time, however, as every home has the intelligent comprehension and the financial adequacy properly to oversee them, the obligations of society as a whole can hardly be ignored.

HANDEDNESS

One problem remains for consideration in connection with our discussion of physical and motor growth and development of children. That is the disputatious question of left-handedness. The probabilities are that altogether too much attention and concern have been paid to this whole problem, both by parents and by teachers. Certainly the results of research do not warrant so much concern as is commonly expressed regarding the strong undesirability of left-handedness.

In an obviously right-handed world, children are warned by their parents, left-handed people are at a distinct disadvantage in comparison with their right-handed fellows. Most of the gadgets, machines, and instruments they will be called on to manipulate are constructed for right-handers and not left-handers. Even schoolroom seating is arranged on the assumption that all the children are properly right-handed and the lighting is placed so that it will fall over their left shoulders when they write. Tablet-arm chairs in upper classrooms are right-handed, and it is extremely awkward to write upon them with the left hand. Scissors, potato parers, saucepans,

telephone receivers and pads, automobile gearshifts, and the like, are designed for right-handed manipulation.

As a matter of fact, however, surprisingly few people are completely right-handed, as you may have observed if you have noted critically your own and your friends' manual preferences. Those who claim to be—and are—definitely right-handed will be found to prefer the left hand for certain things, perhaps for buttoning buttons, picking berries, threading needles, and the like, and if they were to substitute their right hands for these peculiar individual performances their form would be quite as awkward as is that of dominantly left-handed people in a right-handed world.

From the earliest months, parents are likely to watch closely to be sure that a baby shall use his right hand in preference to his left when he reaches for or grasps something. Studies have indicated that the majority of children seem to prefer slightly their left hands during the first six or seven months; observing this disquieting phenomenon, their parents are sometimes fearful that they are "going to be left-handed," and make every effort to discourage the condition by taking pains whenever they pass a toy or block to the baby that they do it in such a way that it will be easiest for him to grasp it with his right hand. Sometimes parents actually snatch away from a child something he has picked up with his left hand and place it solicitously in his right.

All this, as we have indicated above, seems rather needless. While there is a theory held by some psychologists that true left-handedness is inherited through cerebral dominance, there is no actual proof of such domination of the right hemisphere in left-handed children, or of the left hemisphere in right-handed children. To be sure, some children are persistently left-handed; possibly some 10 per cent of all. It has been urged in some quarters that aggressive parental interference with this condition will lead to stuttering, speech abnormalities, and nervousness, the supposition apparently being that the dominant hemisphere in an individual exerts control over speech as well as hands, and that interference with the motor control of the latter upsets also the former. People are alleged to be right-handed, right-speeched, right-eyed; or else left-handed, left-speeched, and left-eyed.

Again, there is no available proof of such correlated dominance. While it has been demonstrated over and over again that stuttering does ensue in some children when normal left-handedness is interfered with, it is extremely likely that the disturbance in speech con-

trol is due more to the emotional aspect of the situation than it is to the physiological or anatomical. When a left-handed child is scolded, rebuked, laughed at, and ridiculed for his manual awkwardness, it is conceivable that the emotional and nervous tension resulting is sufficient to upset his speech as well as his serenity. As a matter of fact, there are many stuttering right-handed children whose manipulative preferences and habits have never been made an issue.

We may conclude that so long as parents and teachers use only passive and casual means to encourage right-handedness, there will be no particular damage done either to the speech or to the emotions or the mental control of left-handed children. The moment, however, they begin to manifest displeasure or scorn and ridicule when the left hand is used persistently, the damage has been done to all three areas. It is far more wholesome to ignore the matter of which hand a child prefers, and to allow him to develop normally and without interference from hypercritical adult onlookers and mentors.

PERTINENT QUESTIONS FOR DISCUSSION

1. Do the girls in your room seem to be physically superior to the boys? Does this advantage, if it exists, appear to extend to intellectual areas as well?
2. Check the children in your room on the age-height-weight tables. Does their average correspond closely with the norms? Do you find striking individual departures from the norms? Is there cause for alarm?
3. Make an inventory of the national and racial groups represented among your children. Can you discern any consistent physical types?
4. From casual inspection of your group, what appears to be the general state of nutrition exhibited among them? Are there some whose status is dubious?
5. Which of your children are at present (or have been sometime during the year) sick with some of the children's diseases? Which diseases? Are any deleterious aftereffects still noticeable?
6. Examine the health inspection cards of your children. How many of the children have defective teeth? Inflamed tonsils or adenoids? Discharging ears? To what extent are corrective measures being taken by parents?

7. Can you discern among your children any relationship between under-par physical condition and unsatisfactory school performance? Be cautious in drawing your conclusions.
8. If you are in a first grade, have you noted any of the health hazards attendant upon school entrance that are suggested in this chapter?
9. How healthful a dwelling place does your schoolroom appear to be from the viewpoint of proper heating, ventilation, humidity, and other physical or mechanical appointments?
10. List evidences of restlessness, ennui, and the craving for gross physical expenditure among your children.
11. Do the health inspection cards in your room record any thyroid or other abnormal endocrine condition among your children? If so, study the individual or individuals concerned and note their present physical and emotional status.
12. Are you troubled by any evidence of premature sex interest or arousement in any of your children? If so, do you know the causative factor or factors? How is the situation being handled?
13. Check the work and play materials available in the first grade of your school. How do they compare with the list of such materials presented in this chapter?
14. How effective do you judge your own system of school health supervision to be? What are its weak spots? What are its points of strength?
15. Is the teaching of health a recognized and respected activity in your school curriculum? Does it appear to be functioning in the actual lives of your children?
16. To what extent is school feeding done in your building? Are any beneficial results demonstrable? Explain.
17. How many left-handed children do you have? Which ones appear to have been chided or ridiculed by others? Do you note any speech disturbances in left-handed children? In right-handed?

READING COURSE TO PARALLEL THE CHAPTER

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CHAPTER 5

PLAY INTERESTS OF CHILDREN

Some Children To Identify in Your Room:

A child who . . .

(1) is developing muscular finesse through play activities;
(2) is fascinated by tongue-twisters and alliterative jingles;
(3) obviously is being stimulated mentally by his play activities;
(4) evidences the seriousness of play;
(5) shows an imaginative side in his play;
(6) is being socialized by his play;
(7) does not care about play—remains aloof from other children;
(8) is an active member of a gang;
(9) is manifesting good sportsmanship; poor sportsmanship;
(10) is finding emotional release through his play;
(11) is one of a pair of real chums;
(12) (girl) belongs to a clique or set;
(13) shows the seasonal influence in play;
(14) is having a temporary falling out with another child;
(15) has an imaginary playmate;
(16) is irked by rules and play regulations;
(17) shows the influence of the movies;
(18) is an inveterate radio fan;
(19) is an omnivorous reader.

WHY DO CHILDREN PLAY?

Play among children is universal. Regardless of race or clime or status, the most obvious thing about children, next to their physical growth, is their universal absorption in play activities of one sort or another. The same motif runs through the clay-modeling or the string-puzzle-making of the Kaffir children and the mud-pie-making and the house-playing of the children in our own back yards of America. It exerts its influence all the way from the dancing and spear-throwing of the Papuan boys to the "scrub" games and the slingshot contests of the boys in our own alleys and vacant lots and countrysides.

Many students of childhood have asked and attempted to find the answer to the question of what it is that makes children play. It is to

release their pent-up energy, opined Herbert Spencer and Friedrich Schiller, observing the romping and racing and squealing of children let loose from school, but forgetting the equally striking circumstance that children continue to play after they are dead tired and almost ready to drop from exhaustion. Where is the surplus energy then? And they play, too, quiet games on occasion, when certainly little if any physical energy is clamoring for expression. The Schiller-Spencer theory is interesting as far as it goes, but it leaves challenging questions unanswered.

Children play, said G. Stanley Hall, because they are retracing the activities of the race and are in consequence driven by inner compulsion to pass through the primitive stage of the camper, the huntsman, the fisherman, and the frontiersman; and later on, in the gang age, to recapitulate the life of the socialized tribesman and villager and communal liver. Hall's theory, now largely discredited, fails to take into account the fact that primitive children play just as ardently, even though they have no long evolving stage of racial and social history to recapitulate; it is also not acceptable because the type of play in which children engage varies with race, custom, season, and locality, and because the doctrine implies the heritability of acquired characteristics, which modern science does not countenance.

In his so-called Relaxation Theory, G. W. T. Patrick accounts for children's play in terms of recuperation from the taxing use of small muscles and sedentary postures through the use of the large muscles in racially older types of activity that tend to reduce fatigue and to refresh or to relax the individual. This theory is open to several objections, among them the circumstance that we have no proof that higher brain centers fatigue more rapidly than lower ones, that primitive children subject these higher centers to little de-energizing use, but play a great deal, and that children will continue to play, as we have seen above, long after any relaxational effect is dissipated.

Children play, said Karl Groos, observing the kitten pouncing upon a rolling spool, the boy tunneling in a sand pile, and the girl playing with her dolls, because play looks forward, and is a preparation or a schooling for the things that will have to be done when maturity is achieved. The kitten learns to chase a spool, and so secure its food later on; the boy learns to build and construct, in anticipation of later needs; and the girl through her doll play learns how to care for children when she has grown up. But Groos neglected to take into consideration the myriads of games children play that

have no obvious future occupational reference. A boy swaying in a tree, or yodeling, or playing tick-tack; and a girl parading in her mother's dress, or gathering flowers or moths or butterflies, or whispering and giggling over small confidences, can hardly be by these means "strengthening and increasing her inheritance in the acquisition of adaptations to her complicated environment."

Various other answers to the question have been proposed, but none of them will apply universally to the play impulse. Play neither releases surplus energy; nor binds a child down to recapitulating the stages of racial experience; nor provides surcease from fatiguing brain activities; nor yet implements him for successful living later on. At least, play does none of these things invariably and universally. A given specific bit of play may well suggest one or another of these interpretations; but as the kaleidoscope of play turns and new scenes are staged, a new explanation must be sought. A theory that is thus only 10 per cent—or even 25 per cent or 75 per cent—valid, is a dubious one to adopt in any field of human research.

PLAY AS SELF-EXPRESSION

A far more sensible standpoint from which to approach an interpretation of the play life of boys and girls is that of self-realization, or self-projection. Beyond the native, instinctive drive to achieve comfort and to avoid pain common to every member of the race, there exists one other instinctive urge—and perhaps only one: that is, the urge to express oneself; to project oneself into and upon one's environment; to bend the world to one's will; to assert one's personality creatively or persuasively. Through the satisfaction of this drive, children are able to achieve security, status, and self-feeling.

If we attempt to relate this universal drive causally to the play life of children, we shall find a far more challenging and satisfying explanation of their activities and interests than in any of the numerous theories of play that have been advanced. Indeed, no theory is needed to account for children's play when we envisage its myriad forms and types from this angle. In order to project himself expressively upon the objects and persons about him, the child must obviously make use of such devices and opportunities as the environment offers and his maturity permits.

If a boy plays simple tag, for example, he is asserting himself, and perhaps strengthening at the same time his reputation as a swift-footed and invincible performer; if he rides rough-shod over his

mates on the playground, he is achieving a prestige that is satisfying to his ego; if he plays a game of checkers with his chum, he is expressing himself in whatever degree of skill he may have developed; if he skates or coasts or skis or swims, he is manifesting a mastery over matter and a control over muscles that is fascinating as well as flattering and convincing; if he builds a water wheel, or a tunnel, or a cave, or a cart, he is bringing his personality and prowess to bear upon the material universe. If he catches a fish, or snares a rabbit, or hits a bull's-eye, or repairs his bicycle, he is doing the same thing. If he engages in games of skill or in athletic competition with others, he is drawing attention to his ego and striving with might and main to protect it and aggrandize or enhance it. If he struggles with a puzzle, or a conundrum, or a new kind of knot, or a secret language, he is bringing his personality to bear upon things and people.

All these things are play in its basal and generic sense. They may involve the hardest kind of work; they may require self-denial and faithfulness in practice and drill; they may induce fatigue; they may even sometimes eventuate in bafflement, defeat, disappointment, despair. But always, assuming that the aims are achievable, these mental and emotional states fade out into renewed determination, stronger purpose, greater effort.

Much has been written about the difference between play and work. Play is often the hardest kind of work, grueling, tiring, discouraging. But if it is play at base, it holds for the participant a compensating degree of pride, self-realization, and awareness that he is projecting his best upon the situation of the moment. From this viewpoint, much of our work becomes play, or at least partakes of the nature of play, since we feel in it a zest and a determination and a consciousness of self-expenditure and self-expression. To the degree to which schoolwork can arouse these motives and ambitions, it will obviously participate in the nature of play; i.e., in attention so long sustained on a specific objective that it may leave the pupil almost exhausted, yet at the same time conscious of having spent himself on intriguing and satisfying endeavor.

VALUES OF PLAY

1. Play As a Muscle Developer

Regardless of the motives that may underlie it, and regardless of the theories that may be advanced to explain its grip upon the par-

ticipant, the general play experience of childhood has a number of contributions to make to the evolution of the total personality. First of all, play activities obviously build muscle and develop neuromuscular coordination. As we noted in the preceding chapter, the total muscle weight of the human organism increases from around two pounds at birth to about seventy-five pounds at the end of adolescence. If one could imagine a child remaining inactive muscularly during these years—as some ill or bedridden children unfortunately have to do—it would not be surprising to find either that his muscles were small and undeveloped, or else that they were flabby and weak. Play years, in other words, build big muscles.

Play years also build neuromuscular coordination and precision. If you will observe the childish gracefulness of a first-grade group in dancing and folk games, the agility of a ten-year-old balancing himself perfectly and almost breath-takingly as he walks along the top bar of a fence, and the charming ease and perfection with which a second-grade girl will jump rope, forward or backward, you will be impressed with the fine and delicate balance among muscles, sense organs, and innervating motor nerves which makes possible such exhilarating form and execution. And if you will pause to listen to the tongue twisters and the alliterative jingles and the trilling and yodeling that issue from boyish and girlish throats, you will realize that the vocal muscles and their innervating nerves are undergoing similar coordinated and balanced growth and development. There is probably no muscle group anywhere in the skeletal system, and certainly there can be few if any involuntary or cardiac muscles, that are not exercised and developed by such play activities as those enumerated above.

2. *Play As a Mental Developer*

It goes without saying, of course, that with the growth of neuromuscular strength and coordination resulting from play activities, there is parallel mental growth. The years of early and middle childhood are years in which the mental content increases phenomenally. The sense organs have reached the peak of their powers to take in stimuli from the surrounding world of objects, events, and people. The perceptual powers are all but bursting with their efforts to interpret and to analyze and to understand these unassorted stimuli. The conceptual powers, in turn, strain to sort and to classify and to generalize. The reasoning powers are taxed to their uttermost to draw conclusions and to build hypotheses and to make applications. Mus-

cles may and do grow heavy and powerful and precise: but it takes mind and brain to direct them; mind and brain to assimilate and to enjoy the achievement and the prowess they bring; mind and brain to originate new activities and goals; mind and brain to interweave oneself and his ego into the world of sense-perception and muscular appropriation that is opened up to the child by the fascinating and absorbing *milieu* in which he lives.

Much of the play activity of children is extremely serious. For the two-year-old, block-playing child, the world has shrunk for the minute to include only the dizzy tower into which he is building his blocks; every iota of his attention is drawn to this absorbing situation. The six-year-old girl cares for a "sick" doll with all the solicitude and anxiety of the little mother that she is. The ten-year-old boy grows completely oblivious to his surroundings as he fashions a wing for his plane or a tail for his kite. Through all these and similar activities there runs a common thread of seriousness and concentrated absorption. No wonder it is so difficult to attract children away from their play setting and to redirect their mental and physical energies upon some new, adult-conceived goal. In games, in sports, in isolated constructional activity, in the dramatic moment of imitation, or invention, or analysis, or creation, the minds of children are quite as absorbed as are those of their elders in their peculiar adult settings and goal-seekings.

In the less serious play activities, too, children's minds are developing quite as inevitably as they are when occupied with more formal and profound activities. In mimicry, in clowning and horseplay, in rough-and-tumble wrestling and tripping and throwing, in chatting and shouting and yelling, in romping and milling about, in teasing and joking, in darting and skipping to and fro like wild dervishes, in shinning and climbing, in creeping up furtively upon one's unsuspecting mate, in tumbling and rolling, in burying in leaves or sand or snow, and in the thousand-and-one other unassorted and unclassifiable antics and buffooneries and gaucheries of children's play, mental evolution keeps parallel pace with neuromuscular. It is difficult to conceive how a child's mind could ever achieve ultimate maturation if it did not conjure up and take advantage of all these dramatic play backgrounds against which it unfolds.

3. *Play As a Weaver of Fancy*

For all ages of childhood, and particularly at the younger levels, play is a prime stimulator of the imagination. In a child's far-

reaching fantasy it is but a step from a springing grasshopper on the lawn to a magic carpet speeding across the sky, or from the actions of flesh-and-blood people to those of the fairies and gnomes and ogres, or from people who talk to animals that do the same thing, or from a glowing incandescent bulb to the lustrous gleam of an Aladdin's lamp. A child can climb either a real ladder that reaches to a second-story window or a fanciful one that reaches to the stars; he can reach for a ball, or he can reach for the moon; he can play with a mate, or he can create an imaginary playmate and venture far with him; he can tear across the dooryard, or he can project himself across space to the land Alice entered on the other side of the looking glass; he can tell of his bow-and-arrow exploits in the yard, or he can expand them into tall stories of his successful encounters with bears and dragons; he can be a boisterous child, or he can be, in turn, a savage, an Indian, a policeman, a flier across the skyways. Heights and depths offer no limitations and no obstacles to his assaying. In his play life he is one with time and space, with man and animal, with yesterday and tomorrow, and it is accordingly not hard for him to believe in Santa Claus, fairy godmothers, and inhabited universes beyond.

This intriguing flexibility of a child's imagination makes it not only easy but inevitable for him to seek experiences that will satisfy it. In imitative play, he may identify himself sooner or later with most or all of man's occupations and find much satisfaction in fleeting apprenticeship to them all, in turn. The child becomes intermittently man the builder, man the digger, man the carver, man the buyer and seller, man the physician and surgeon, man the postman and chauffeur, man the weaver and tailor and cook. From the story hour, too, the child draws intriguing material out of which to create and to recreate to his heart's content. From the movies he sees and the radio programs he hears, he has further points of imaginative departure from which to project his fancy and to bend his own creative and emulative efforts. From his books and from the comics he pores over, he derives still more delectable food for fancy, and he may in very truth take the wings of the morning and dwell in the uttermost parts of the earth.

4. Play As a Socializing Force

Except for the earliest years, play for most children is not a solitary thing, but a definitely social and participative one. As you observe a bevy of children let loose upon the playground, you cannot

but realize how gregarious they are. In small bunches, or in larger groupings, dependent upon their age, their sex, and their personalities, most of them will be actively engaged in some form of common play, ranging all the way from whispered confidences exchanged among several little girls, to free-for-all tag, wrestling matches. and arguing engaged in strenuously by the boys. A playground in which each one of a hundred or so children was playing at some solitary game would be absolutely unthinkable. As we have remarked previously in this chapter, a child expresses his ego best and projects himself most satisfyingly upon his environment when there are other children present to provide him a provocative setting. If you would punish a child unduly on a holiday, deprive him of the privilege of passing the afternoon hours with his chum or in the bosom of his set. No juvenile personality can experience status and joy in a social vacuum.

In the process of group play, children undergo a profound degree of socializing. In the interplay of personalities and values and goals, each child learns immeasurable lessons in social adjustment and adaptation that will stand him in good stead in the great adult world into which he will venture forth tomorrow. In the group or the gang, children learn to be sympathetic, to appreciate the rights and the abilities of others, to play the game fairly and honestly, to submerge their own personal wishes and motives in the wishes and motives of the group, to take criticism and censure and to give it, to manifest loyalty, to contribute to the common task or purpose, to follow the rules, and, in general, to round off the rough corners of their own individual natures in the general melee of childhood play.

The great lessons of good sportmanship learned in the back yard or the vacant lot or the school or public playground, and later upon the athletic fields and in the gymnasiums, by juvenile participants and competitors unquestionably are transferred to a considerable degree to the counting house and the shop and the factory and the legislative hall, and to all the other adult enterprises that border upon the streets of men. Other things being halfway equal, the unsocial or antisocial adult is but the child who grew up without the salvaging influences of play at its best during the years when his character and his philosophy of life were taking shape.

5. Play As Emotional Release

Watch your children at dismissal time, or during periods of intermission when they troop forth from the doorways of the school onto

the play yard. Almost before their feet have passed over the threshold, they become embroiled in a dozen skirmishes and encounters of one kind and another. During the preceding hours within the restrictive atmosphere of the schoolroom, regardless of how much formalism may be minimized by the nature of the curriculum and the nature of the activities concerned with its imparting, the more explosive and boisterous phases of children's emotions have had no opportunity to blow themselves off. True, the children have laughed guardedly in the appropriate places; they have experienced a modicum of vicarious sympathy and sorrow and emulation from their contacts with the people and the situations that comprise the reading content and the social subjects content of the grade; they have experienced annoyances at their own inept or unacceptable performances; they have felt the swift sting of envy, jealousy, failure, and the like, as they have joined in the common activities of the class. However, so far as finding opportunity to work off these subtle emotions by physical means or to tap their emotions at a profounder depth is concerned, children during school hours are obviously unsuccessful.

Plays and games and sports and athleticism provide a rich, provoking setting in which children may express their emotions to the point of saturation. The pent-up energies of restricted and formalized home life and school life seek and find grateful release. The joy emotion, in particular, has its innings amid such surroundings. It is difficult to conceive greater or more unalloyed delight among children than that commonly experienced by them in spending physical and emotional energy, freely and without restraint, on games and sports. Under these circumstances, too, swift-mounting rage and anger may flare into harmless eruption; gnawing jealousies, likewise, may be worked off and replaced by appreciation and pride; and mutual juvenile admiration may fleetingly tower above the petty differences and the carping belittling and the flung taunts that accompany the play behavior of any juvenile group.

CHUMS AND GANGS

So long as a child is in the toddler stage, he is apt to be in the main an individualist. There is so much fascination in the surrounding external world that impinges upon his senses that his days are filled to overflowing with investigating, exploring, examining, comparing. The presence or absence of other children at this early age is a matter of small consequence. A child can be quite happy and

keep satisfyingly occupied by himself. Indeed, when no adult is present in a nursery school group to restrain the children, there is certain to arise a considerable amount of quarreling and sword-crossing.

Every kindergarten and first-grade teacher is familiar with the solitary type of child who, because of lack of brothers and sisters or other children of like age to initiate the socializing process before coming to school, and through lack of opportunity to interchange ideas through "parallel play," continues aloof and unsocial for many weeks. The kindergarten child, when he enters the first grade, will ordinarily have been helped successfully through this unsocial period and will be found able to get along far better with his mates than will the child without previous kindergarten experience. As a matter of fact, modern primary schools are coming to realize that most of the first year of a child's life in school must be given to socializing him and assisting him over the definite hurdles provided by a solitary earlier childhood. Even during the sixth and seventh years—and beyond—while socialization is going forward rapidly, children still show a good deal of selfishness and spend much time in petulance and jealousy and in the seeking of selfish ends.

But increasingly through the elementary-school years the solitary play of earlier childhood disappears, and the thrall of the group and the gang fastens itself upon children. By the third and fourth grades, team games flourish on every hand, and the process of final socialization through play contacts is in full swing. A highly interesting phase of this process is the growth of gangs and cliques; the former among boys primarily, and the latter among girls. A number of interesting studies of the boys' gang phenomenon have been made, most of them indicating that not far from 100 per cent of boys belong to such an organization at one time or other during the years between nine and twelve. These gangs are rather loosely knit, as a rule, the leader being commonly a youngster who possesses some superlative trait, e.g., athletic prowess, strength, leadership, personality, and the like. They are usually quite cosmopolitan, at least within the limits favored by the general adult mores of the neighborhood. Their members are extremely loyal and faithful to the tenets of the group, tending to play and work and venture forth together.

Often a gang solidifies its loose texture into a club, to which infrequently girls may be admitted, and to which original and striking names are often affixed. Strict secrecy regarding meetings, programs,

and purposes is usually maintained. Not infrequently these clubs play definitely constructive roles in the lives of their members, particularly when they promote athleticism, hobbies, or other wholesome pastimes; sometimes, too, unfortunately, they may be the beginnings of bizarre and ultimately wayward or delinquent conduct. Much depends, of course, upon the character and the quality of their leaders and the opportunities presented in the locality for wholesome adventure.[1] Ordinarily, most of these juvenile gangs begin to lose their grip on boys by the close of the elementary-school period. Adolescence calls them to new interests and new forms of social adventure.

Of girls' cliques, fewer studies have been made. The probabilities are that girls organize almost as universally into such groupings as do boys, although the groups tend to be smaller and their organization considerably less stable and less activated by positive purpose.[2] Both sexes unquestionably gain much from their gang associations in the way of cooperativeness, leadership, self-expression, sensorimotor and muscular skills, and ideational content. They lose, on the other hand, through the possibilities of becoming excessively competitive, overexcited, defiant, and perhaps anti-social.[3]

Chumming is an interesting phenomenon among boys, and also of course among girls. As to the basis upon which a child chooses his close friends, including his particular chum, we may list a number of factors. Ordinarily, gang friends and chums are of about the same chronological age, although almost if not quite equally important is the factor of similarity in mental age. If youngsters are to get on well together, and if they are to give to and receive from each other to a normal degree, their general intelligence and stage of mental development must be similar. And it is likely that equivalence of mental and developmental age is a stronger basis for chumming and friendships than is that of calendar age. Evidence of this fact is often particularly striking in a dull child, who, unless there are other dullards available, gravitates for his social experiences to children chronologically younger than himself, and so more nearly parallel with his mental age. Conversely, a bright child, lacking playmates in kind, often seeks to hobnob with those definitely older in years than himself, because, from their superior mental age, he can find

[1] F. M. Thrasher, *The gang* (Rev. ed.; Chicago: University of Chicago Press, 1936).

[2] H. H. Anderson, *Proceedings of the Society for Research in Child Development* (1936).

[3] F. L. Goodenough, *Developmental psychology* (2nd ed., New York: Appleton-Century, 1945).

greater stimulation than would be likely from the average group more nearly equal to himself in chronological age.

Tolerable equivalence in physical factors, also, ordinarily draws friends together into juvenile groups, or into the inner circle of chums. Boys in a gang or set are likely to be approximately of the same size, height, weight. A boy who departs radically from the central tendency may be popular and acceptable, however, if he possesses some extraordinary trait that will compensate in the minds of the others for his physical atypicalness. A "fat" boy, for example, who is a good sport, slow to anger, and unquestionably loyal, may be accepted in good standing in the juvenile group. The barriers of national extraction or even race may be thrown down to admit some otherwise acceptable or desirable youngster to the charmed circle. Juvenile gangdom, as we have said, is often observed to be wholesomely cosmopolitan in its complexion.

Geographical propinquity of course is a strong factor in the evolution of the childhood gang and of childhood chumming. Boys who live near the same corner or intersection, or in the same street or the same part of the village or town, are thrown together naturally and obviously by this accident of residence. Frequently the neighborhood gang comes to occupy a good deal of prominence in the community. It may dominate the play and sports activities of the other children, appropriate the favorite place of juvenile rendezvous, sally forth in athletic or in bellicose encounter with other gangs in other neighborhoods. In many cases it may worry parents, annoy householders and shopmen, antagonize citizens, and even receive attention from police officers to whose ears complaints of its predatory activities are made by stuffy people who are up in arms at indignities they have suffered at its hands.

Probably most juvenile gangs, however, strut their hour upon the stage without arousing any considerable amount of grownup ire or antagonism. Their existence is taken for granted, and the things they do are commonly looked upon tolerantly, not to say indulgently and sympathetically. As a matter of fact, there is nothing in the essential nature of boyish gangdom that smacks of misbehavior and deviltry. It is only when the leader of a gang is an older fellow, or when he is actuated by poor principles or poor morals, or indeed when the favorite form of a gang's activity is asocial or predatory in nature, that these juvenile groupings become reprehensible. For the most part, they contribute positively and constructively to the socialization and character-building of children.

CLIMATE AND SEASON

Needless to say, children of the tropics have no opportunity to build snow huts, or to skate, or to coast down crusted hills; and Eskimo children can neither tunnel in the sands of the beach, nor swim and cavort in warm lakes, nor plait leafy crowns in a summer grove. Available play activities arise, in the first instance, out of the climate of a region. Labrador children ride and run with their dogs, fish through the ice, track and snare animals, spear seals, or in the brief summer pluck bright flowers, paddle or sail their canoes across open water, prance about in the fleeting sunshine. Hawaiian children, on the other hand, braid the leis, ride the surf, learn to play the ukulele, race across sandy beaches, swim and dive, like the veritable water babies they are. Play activities of children anywhere are conditioned by geographic factors quite as much as by human ones.

Seasons, too, have a marked effect upon the kinds of sports and play in which children engage. There is no surer sign of the coming of spring in temperate regions than the sudden and unheralded appearance of marbles and marble play among young children. Nobody quite knows what the exact nature of the stimulus is that prompts seven-year-old and eight-year-old boys in mid-March to resurrect their glassy treasures of last spring and throw them into competitive and expostulative action. Appear they do, however, overnight and everywhere, almost as surely as the returning spring brings back the birds. Coordinately with boys and their marbles, little girls of the primary grades remember the thrill of rope-jumping; overnight, the fever comes back, and on every street, in every back yard, on every playground girls are to be seen jumping their way along happily and with striking gracefulness and ease.

Seasonal play is not, however, limited to marbles and rope-jumping. These are mere juvenile harbingers of spring. Children's play activities during much of the year, and notably in the long warm season, may be classified as follows:

Running and Ambulatory
- Chasing
- Tag
- Tripping
- "Scrub"
- Football
- Wrestling
- Boxing
- Hide-and-seek
- Button, button
- Hiking
- Kiteflying

Rhythmical
- Dancing
- Marching, informal parading

Singing
Farmer in the dell
Pop goes the weasel
London bridge
Swaying
Beating time
Yodeling
Ring games
Construction activities

Imitative

Airplane modeling
Store
School
Mimicry
Dramatization, acting
Parading in grownups' clotnes
Magic, sleight of hand
Camping

Aiming and Throwing

Horseshoes
Bowling on the green
Croquet
Slingshot
Air rifle
Popgun
Bow and arrow
Throwing stones
Baseball
Basketball
Volleyball
Jackstones

Water Sports

Swimming
Diving
Disporting
Sailing toy boats
Paddling
Rowing
Sailing
Outboard
Skipping stones
Splashing, spattering

Mental Stimulation

Guessing games
Conundrums
Puzzles, acrostics
Checkers, chess
Simple card games
Dominoes, parcheesi
Reading
Radio
"Fan" activities
Chatting, confidences
Club activities
Family games

Cold-weather play interests include many of those exhibited in warm weather, as listed above. In addition to indoor games and sports, which the inclement weather and early darkness tend to make attractive, the following outdoor activities during daylight hours—and some of them during evening hours as well—are popular at the elementary-school age:

Coasting
Skiing
Skating
Hockey
Making snowmen
Building snow forts
Investing and defending forts
Throwing snowballs
Rolling in snow

SCRAPPING AND QUARRELING

Evolving young personalities come often into open conflict. Since it is principally through their play activities that children express their egos, one must expect to find a good deal of rough going in their play and sports. A powerful ego want at the juvenile stage is domination and preferment. A boy engages in play activities, in part at least, to assert himself, to demonstrate his prowess or superiority, to achieve status. When a score of boys are playing the same game or indulging in the same sport, they are all doing so for this ultimate purpose. Consequently they are constantly getting at loggerheads with one another as each spars for the advantage. Misunderstandings and disputes arise momentarily; blazing anger flares up meteorically; critical and disparaging opinions are shot back and forth intermittently; teasing, scoffing, insinuating, ridiculing, primitive blackmailing are all in the day's play. Not infrequently fists fly and supple young bodies clinch in fiery struggle. Even chums and members of the same gang, while they usually get on together much better than they do with other children, occasionally have fallings out, and resort to verbal or physical encounter.

Girls may be quite as acrimonious in their disputes and disagreements as boys, though they come less often to physical grips over their difficulties. Their tongues appear to be more limber than boys', and their command of taunting or vituperative language decidedly superior. Too, they can be, on occasion, quick with their slaps and cuffings, which they may administer indiscriminately upon any girl or boy who irks or annoys them.

It is a fortunate fact, however, that prolonged wrath among children is rare. Two boys who have been scrapping violently may be as good friends as ever five minutes later, and may unite wholeheartedly against some threatening juvenile bloc that must be either won over or chastised, as occasion may demand. Individual children may, of course, become embittered against one another, and may nurture resentment and anger for days, avoiding one another or disparaging one another constantly. Even among them, however, mutual good feeling is usually fully restored sooner or later, although lifelong animosities sometimes spring from childhood grievances and distempers.

IMAGINARY PLAYMATES

The world is full of children, and it would seem unnecessary for any of them to go to the trouble of creating imaginary playmates.

Various circumstances, however, stimulate the manufacturing of such shadowy and incorporeal companions. First of all, a child who has no brothers and sisters to play with during the preschool period will often resort to this substitute for flesh-and-blood companionship. A child, too, who is very much younger than the other siblings in his family, and who consequently lacks opportunity to play with others of his own approximate age, may create an imaginary mate. A child whose home is isolated geographically or culturally from other homes with children may create companionship for himself in this way. So, too, may children whose parents, fearing microbic or moral contagion, unduly shield them from juvenile contacts outside. It happens sometimes also that an unusually bright child does not feel drawn strongly to run-of-the-mine children about him and creates an imaginary playmate after his own fancy. Sick children, hospitalized children, crippled or otherwise handicapped children are frequently inclined to create imaginary companions.

Regardless of the motive, a child who conjures up for himself an imaginary companion has the extreme satisfaction of creating according to his own favorite blueprint. An imaginary playmate will exult when its creator exults; grieve when he grieves; fall sick when he falls sick; be a sympathetic confidant when he feels an urge to unbosom himself; be a staunch supporter when he fares forth to conquer.

There is, of course, a negative aspect to all this. Playing imaginaries can be wholesome up to a certain point. Beyond that, however, there is some danger that the creating child may stray too far from the real world about him. One of the ways in which introverts avoid the storms and stresses of existence is through withdrawal into an inner world of imagined triumphs and successes. If a child sets up his imaginary companion from any such motive as this, he is likely to be in for trouble in adjustment later on. To seek solace for defeat and discouragement in an incorporeal personality is to turn one's back upon the world of reality and to avoid the attitude of attack and re-attack against its buffetings and thwartings. Introversional escapism is the way of the turntail and the slacker. Parents and teachers should do everything in their power to provide satisfying juvenile companionship for every child, in part at least to counteract the dangers inherent in imaginary mates. It must be evident also that a child's socialization proceeds from the rubbing of elbows with flesh-and-blood children rather than from fraternizing with imaginary companions.

THE PLAY OF YOUNG CHILDREN

We are not primarily concerned in this book with children of preschool age. It is interesting to note, however, that the play in which children five years of age and under commonly engage is usually highly imaginative and dramatic. The chatter a four-year-old will carry on with himself or with his imaginary playmate as he manipulates his play materials shows this clearly. Much of the play in the earlier years is solitary, one observer finding that children between the ages of two and five years devote approximately 90 per cent of their time to playing alone.[4] Since the vocal apparatus is functioning admirably, there occurs a deal of diffuse talking to oneself or to imaginaries.

The preschool child finds himself looking out upon a world filled to the brim with fascinating things, processes, events, people. Consequently, he seeks in his play to dramatize much of what his surfeited sense organs bring in to his extremely active brain. Imitative activities fill his playtime from morning until night, as he manipulates his version of the world and its contents. With the most ingenuous and delightful informality he can transform a couple of chairs into a train; a kiddie-kar into a speeding automobile; a stick of wood into a streaking airplane. Without the bothersome task of securing and arranging properties, he can be postman, doctor, nurse, teacher, stump speaker, town crier; he can telephone without receiver and transmitter; contact his father at work by twisting imaginary dials; make and bake bread and cake and cookies without flour, oven, or fire; treat "sick" dolls without medicine, potion, or scalpel; transform himself into a windmill, a bear, a horse, a steamboat, a wild Indian, on the spur of the minute and without paraphernalia of any sort beyond that supplied by a vivid imagination, whirling arms, and cooperating vocal cords.

The play of preschool children is influenced considerably also by the stories and fairy tales and nursery rhymes that they hear repeated over and over by their parents or by other children. Much of it therefore originates in fanciful situations inherent in or suggested by these tales, supplemented by the child's own flair for imaginative indulgence. Five-year-olds will dramatize almost *ad nauseam* such intriguing themes as Little Red Riding Hood, Goldilocks, Three Billy Goats Gruff, etc., as well as those suggested by magic carpets and slippers, gnomes and fairies, talking animals,

[4] Breckenridge and Vincent, *op. cit.*, pp. 443 ff.

broomsticks and witches, and the inimitable and universal Mother Goose.

THE PLAY OF ELEMENTARY-SCHOOL CHILDREN

The older children grow the more numerous and varied become the games they know and love. During the preschool period, their experience and contacts are more limited, and the actual number of play activities in which they indulge is not very large. Subsequent to the elementary-school age, they desert many of those that were popular previously and tend to focalize their attention upon a few favorites that are timeless in the affections of childhood and youth. During the years between, however—the elementary-school years—children's play enjoys a golden age during which more forms and varieties of play activity will be engaged in than at any other time in their lives.

In general, children in this period, particularly during the early part of it, are irked by rules and regulations, as we have noted in a previous chapter. In the tumultuous process of growing physically and socially up to pubescence, every child aspires to be more or less a law unto himself when he joins with other children in play. Probably in part this represents a protest against the discipline and supervision of adult mentors in home and in school. When he escapes from their influence momentarily and joins the juvenile group, he glories in his freedom from their burdensome solicitude and strives to be his own boss in every sense of the word. Rules and regulations on the playground savor too much of prohibitions and requirements in the home. This dislike of restrictions stems also no doubt from a passionate wish in every prepubescent child to be an individualist and, as we have seen, to suffer no restrictions in expressing his ego and in imposing it so far as possible upon other egos around him.

But if each child proposes to establish and to follow his own rules, he is none the less keen and quick to challenge any departure from regulation performance on the part of others. In any play group composed of nine- and ten-year-olds you will hear children loudly denouncing any comrade who has broken a recognized rule, perhaps if for no other reason than to cover up their own deviations from them. Among children there is much cheating and much irregularity of performance; much mutual criticism of form and move; much denouncing and quarreling and scolding. It may appear to the adult onlooker that children derive quite as much satisfaction from their

disputes and diatribes as they do from the game itself; certainly they spend quite as much time on each.

The following dialogue occurred on a vacant city lot where six boys averaging in age about eleven years, were playing "scrub":

1st boy: "Strike three! You're *out*!"
2nd boy: "I ain't either out! That wa'n't no *strike*!"
3rd boy: "'T was, too, a strike!"
1st boy: "Course it was! My turn to bat!"
2nd boy: "Go ahead! Pitch another! Tellin' *me* what's a strike!"
4th and 5th boys, in unison: "You're out! Mosey along!"
1st boy: "You're out, I say! Three strikes!"
2nd boy: "'T wa'n't within a mile o' the plate! Go ahead, I say! Pitch!"
3rd boy: "Go ahead, Ray! Take the bat away from him! He's out!"
6th boy: "Aw, let him have another one; he'll be out then, anyway!"
1st boy: "I say he's *out*! Any umpire'd say he was!"
2nd boy: "Shut your face! Pitch in another an' I'll knock a homer!"
1st boy: "That's *my* ball, you! I guess I got a right to say who's out!"
2nd boy: "Go ahead! Pitch 'er in!"
6th boy: "Aw, play ball! Pitch in another one!"
1st boy: "He's had three now! He's out!"

Some favorite activities for boys, with the ages at which they are popular, would include the following:

Tag (at any age, but at the peak around 10);
Chewing gum (increasingly popular after 7);
Drawing and sketching (highest peak at 8);
Baseball (popular from 9 on);
Reading "funnies" and "comics" (from 7 or 8 on);
Reading books (varies, but generally popular from 7 on);
Reading magazines (varies, but commonly increases after 10);
Reading newspapers (after 9);
Running and jumping activities (up to 10, then diminishes);
Football (popular from 9 on);
Radio (increases after 11);
Movies (keen interest from 8 or 9 on);
Club and gang (after 9, diminishes by 13);
Checkers (from 7 on);
Hide-and-seek (from 7 throughout the period).

Girls, in addition to interest in most of the boys' games, spend a good deal of time in the following activities:

Doll play (up to 8 or 9, then sharply diminishes);
Gathering flowers (sporadic until 9; popular after 10);
Cutting and pasting (diminishes by 10, then often disappears);
Rope-jumping (6 to 10; sporadically for an additional year);
Jack stones (up to 9 or 10; then sharply disappears);
Playing house (7 through 9);
Playing school (from 8 throughout the period).

Children's play and recreational activities are, of course, largely regulated by availability of materials, by encouragement and example of adults, by imitative example of activities of other children, and by physical play space and opportunities. Obviously, a primary child living in a home or school environment in which none of the many excellent children's books are available will show little reading interest or activity. Obviously, too, a twelve-year-old who enjoys no library facilities, and whose home reading materials are limited to a bookcase of formidably bound classic volumes preserved behind glass, will spend little time in reading. So also, children in a crowded tenement district of a city will gather no flowers; children living in remote areas will learn few new games from other children, at least until after school entrance. Children who are repressed unduly by their parents, or who are prevented from free mingling with other children during the preschool period, will often be found looking upon the play activities of other children as upon some unreal world apart from their own cloistered existence. Typifying children of the last-mentioned type is Judith.

Judith was brought up by her grandparents, with whom she went to live at the age of three years. Both of them were then well over sixty-five years of age. Had the fates tried their hardest to select a foster home that would stifle completely all normal play impulses in a child, they could not have done better. The daughter—Judith's mother—had married unfortunately when she was herself almost 40, the union resulting in separation after a year, followed by the suicide of the mother. Taking their cue from the tragedy of their daughter's life, Judith's grandparents were determined to shield their grandchild from anything and everything that might offend or harm. The child was guarded and sheltered like some tender hothouse flower, which indeed she shortly became. Toward the few children in the neighborhood of her own age, Judith was encouraged to maintain an invariable aloofness, and even before she went to

school her watchful guardians saw to it that the child was kept away from all possible juvenile contamination. By the age of six, she was a sober appearing child who rarely smiled and never fraternized with other children. In dress, appearance, and deportment she was by ten a "little old lady," and was so nicknamed by her mates. Her security consisted in maintaining herself in her earlier status quo. She was uneasy when the teacher was out of sight, contented and secure when she was present. She rarely played, preferring to hover about the teacher during playtime, when the others were romping and shouting outside. At home, she helped her grandmother with the housework, spent her evenings reading carefully selected books, crocheting, knitting, embroidering.

MOTION-PICTURE INTERESTS

Mid-twentieth-century children are the second generation to be brought up on motion pictures, and the first to be brought up on the "talkies." It is impossible to forecast what is to be the long-time effect upon the race of this extremely popular indoor amusement. Some investigators [5] see little of constructive value in motion pictures and much of negative or actually destructive value. Others—and they appear to be in the majority—see in the movies little danger and much good. They are inclined to discount sharply the alleged unwholesome effects of motion-picture programs upon the emotional and physical well-being of juvenile patrons. Almost everybody agrees that they have as yet unfathomed possibilities both for diversional and for educational purposes.

Certain it is that children of the elementary-school age attend the movies increasingly as they pass from grade to grade. As a matter of fact, from a third to a half of all movie patrons have been found to be children or adolescents. From about the age of eight on, attendance averages at least once a week, with 20 per cent going two or more times weekly.[6] One boy was found by the author to average seven times, week after week, in movie faithfulness! There can be small doubt that the influence exerted over children by this easy, cheap, and universal means of entertainment must be tremendous.

The author has been for many years chairman—and for many more years a member—of the moving-picture review board in a city

[5] H. J. Forman, *Our movie made children* (New York; Macmillan, 1933).

[6] E. Dale, *Children's attendance at motion pictures* (Payne fund studies) (New York: Macmillan, 1935).

of some 200,000 persons and has had excellent opportunity to observe and to study the whole question. In one investigation he carried out, the conclusion was reached that there was not a single motion-picture program operating during a six-day survey in the (then) eight houses in the city which as a psychologist he could approve as being 100 per cent wholesome for children to see. Each theater ran a double-feature program, extending for about three hours. The strain on the eyes, the physical hazards attendant upon packed bodies, inadequate ventilation, high humidity, and vitiated air in a few of the theaters, the emotional arousement, and the dubious moral and ethical tone of the program in all of them, could not be denied. Neither, on the other hand, could the keen interest and absorption shown in the laughter, the hooting and catcalls, the occasional eloquent silence, the gasps of suspense, the audible comments, and the stamping of feet that punctuated many of the scenes.

Protest to the industry, which the author has made on more than one occasion when a program has been deemed questionable or downright harmful to the milling hundreds of children who see it, invariably results in the explanation that the industry is in business to produce entertainment for adult theatergoers, and that if parents do not take pains to select wisely the films their children are allowed to see, it is no fault of the producers. It is pointed out that the industry releases many films that are designed primarily for children, and that communities may, if they care to, provide special juvenile programs. Failing to do this, they may list weekly, through better films organizations, titles of pictures suitable for family attendance that are to be exhibited in the local theaters. Parents who still have the time and inclination to oversee the nature of their children's amusements may be guided accordingly.

It is difficult to find flaws in this position. Unquestionably, the industry is right. If one accepts the point of view that it is portraying on the screen programs and situations that hold the mirror up to life, with no diminuendo on its salacious aspects, its immoralities, its social problems and its underworld obligato, its gangsters and criminals, one has to admit that it is within its rights when it releases pictures that deal with problems and situations in which certain obnoxious people find themselves. The redeeming feature offered is that the bad person is supposed to come to a fittingly bad end; that right must ultimately triumph; that loose living, though attractive, leads to disaster eventually. If one supposes, too, that the rank and

file of adult movie-goers are men and women who are disillusioned with life, or are discouraged, or are dissatisfied with the prosaic existence of every day, and who want, therefore, when they step aside from their workaday existence to spend a few hours in a theater, to identify themselves with villains, crooks, prostitutes, lounge lizards, and idlers, to experience vicariously those gratifications of wealth, sex, and influence that they have missed in the humdrum world from which for the hour they have separated themselves, one is compelled to agree that even salacious films have their place, and that the screen presents a gigantic escape situation for the release of surcharged emotions and the inhibitions imposed by living and working in a prosaic world.

With all this, there is perhaps no quarrel. Moving pictures of this sort may well be a safety valve for the vicarious blowing off of emotional steam. One must add, however, that the same theater-goers who are alleged to be seeking escape find equal fascination and release in films of another color. The industry has produced and is producing great films, along with little ones, in which the whole higher gamut of human life and emotion is run, and in which settings and emphases are not in underworld dives, nor in impossibly elaborate apartments, nor in men's predatory or illicit adventurings. One wonders what the total long-time effect upon the race might be if emphasis and setting in all motion-picture releases were based upon the generosities and the ambitions and the ideals and the hopes of men, rather than upon their meannesses, their littlenesses, their vices, and their depravities. Motion pictures exert a tremendous influence over the habits, attitudes, values, purposes of people. That influence might conceivably be more salutary than it is.

Regardless, however, of their effects upon adult patrons, the movies find their most appreciative and boisterous audiences among boys and girls. Unfortunately, and unlike most adults, children are unable to abstract the good lesson from a bad scene. "All's well that ends well" is a happy rationalization for grownups, whether they are engaged upon problems of daily experience or whether they are evaluating a situation projected before their eyes. Juveniles, with shorter attention span and with less ability to hold feeling and judgment in abeyance until a denoument is reached, may readily break a film down into a series of scenes any one of which, no matter how sordid, may be elaborated upon mentally and may be revived later for purposes of testing out or emulating.

In this tendency of the immature mind lies much of the moral

and ethical damage done by lower types of movie entertainment. While no statistics are available to implement this conviction, one can cite numerous case histories of the wayward or delinquent or misadventuring children whose extravagant conduct has been admittedly or obviously due to watching, listening to, and then elaborating upon unwholesome incidents portrayed in moving pictures.

Adults must not make the mistake, however, of attempting to superimpose their own grown-up standards upon films adjudged right and proper for children. The latter are happy and excited over wild west, cowboys, thrillers, serial adventures, slapstick, and the like, and these do them no particular harm. They may hoot and scream and yell and all but raise the roof, but they will emerge morally and ethically none the worse for the two or three hours of intense identification with their adventurous heroes and heroines. It is the subtle type of film that seems to countenance and idealize loose living, infidelity, impossible luxury and unachievable wealth, crime, callous morals, seduction, and the like, that wreak the damage on child personality and standards of conduct. These are probably downright vicious and poisonous to the growth of good impulses and proper ideals. It must be admitted, on the other hand, that many child patrons—perhaps most of them—fail to absorb subtle and sometimes even open suggestion from the "advanced" movies they see, and may react to the scene unfolding before them with boredom, guffawing, or only intermittently focused minds.

THE RADIO

Here is another form of amusement which, like the motion picture, demands only passive, effortless participation. Though the radio is a relatively late comer to the field of entertainment, it is believed that not far from 90 per cent of our American homes possess one or more sets. Nobody knows how many hours weekly the average school-age child spends in "listening in." The probabilities are that, owing to its immediate availability and its extremely varied offerings, radio has more child-hours to its weekly credit than have the movies.

Apart from specific studies of children's radio-program preferences and interests, child psychologists and consultants are constantly hearing complaints from troubled parents about the dubious contributions the loud-speaker is making to juvenile training and welfare. Some of them strongly disapprove of the hair-raising mystery

and crime programs that they contend have unwholesome reverberations upon the emotions of their younger children, disturbing their sleep and dominating their dreams. Others criticize the abandon and selfishness with which their children appropriate the family radio whenever a favorite program is due. Still others rebel at the difficulties they have in getting children away from the radio and off to bed at the proper time; at their perpetual redramatizings of radio thrillers, comedians, and buffoonery artists; at the influence exerted over their play activities by the ideas and situations that have absorbed them in radio programs; at the ever-recurring half-hour or hour's blaring forth of what, to the ill-humored adults in the home who are compelled to be unwilling listeners, not only has no appeal but is actually downright distasteful and silly. From the grown-up point of view, these faults and shortcomings of radio programs are quite obvious.

Here again, however, as in the case with movies, much of the entertainment provided by the radio is neutral rather than harmful to morals or standards of juvenile behavior or conduct. Adult listeners may have no predilection for melodrama, crook chasing, chit-chat, cowboy and western serials, and the like. To the ears of fascinated children, however, the primitively stirring annals of a Canadian mounted policeman, or of a famous detective, or of a western desperado, or of a smooth crook, never grow stale or wearisome. As often as each day's installment comes around, eager young listeners may be seen absorbing it all, and reacting characteristically to its ever-changing facets. As crook meets crook, as the legions of the law close in upon both, as the crime sleuth unravels the baffling mystery of murder, as the cowboy dashes over the plains in quest of the outlaw, as the clock turns backward to reveal a modern boy and his gang among prehistoric people, or forward to reveal them engaged in interplanetary wars and plots, adults frown and denounce, while juveniles follow the intriguing narrative with fascination and delight.

The ten most popular radio programs listened to by metropolitan New York children between six and fourteen years of age were found by Jersild [7] to be as follows:

Boys

1. Comic-strip detective hero;
2. Adult comedian songs, jokes;

[7] A. T. Jersild, *Child psychology.*

3. Cowboy settings;
4. Early "western" drama;
5. Interplanetary adventure;
6. Adventure involving mystery, magic, villainy;
7. High-school boy melodrama;
8. Adventures of two boys and company;
9. Adult comedian cast;
10. Mounted police juvenile adventures.

Girls

1. Adult comedian songs and jokes;
2. Comic-strip detective hero;
3. Interplanetary adventure;
4. Cowboy settings;
5. Early "western" drama;
6. Adventure involving magic, mystery, villainy;
7. Adult male and female comedy team;
8. Adventures of two everyday children and company;
9. Adventure of two boys and company;
10. Melodramatic adventure of a girl and company.

This study was made in the spring of 1936 and included programs most frequently listened to by 1059 boys and 497 girls. Less popular programs mentioned by both boys and girls between these ages included cowboy and western serials, adult dramatizations, amateur juveniles, adult crime and crime detection, story and song for young folk, and adventures of juveniles in prehistoric time. That there is considerable transitoriness and instability of interest in specific types of radio program is indicated by the fact that Jersild found wide variation in children's tastes six months later. Adventures involving mystery, magic, and villainy, for example, which had ranked sixth before had dropped to twenty-third place; and by another year, to forty-seventh place (fourth to sixth grades only). Like adult listeners, juvenile ones appear to be changeable and fickle in their radio preferences at different times.

CHILDREN'S READING

The elementary-school child starts out at the beginning of his school career unable to read at all. Within one brief year—or at most two—he has developed sufficient mastery to make reading enjoyable. The growth of skill in perceiving word meanings and in comprehending simple sentence structure is one of the chief delights of primary children.

There is no valid reason why the pleasure derived from reading at the primary-school level should not continue throughout the intermediate grades, and indeed on into and throughout junior and senior high school. Many factors, however, contribute to turn the edge of a child's early enthusiasm and to decrease the charm reading originally held for him. First of all, there is sometimes so much teaching emphasis upon form and structure of sentences and paragraphs, upon significant or difficult words, upon character analysis of persons read about, and—later on in the upper grades and in high school—upon outlining, the life of the author, memorization of special passages, and the general dissecting of reading material, that children may shortly come to look upon reading as a task, or a chore and, accordingly, to lose interest.

Second, while the number and variety of new and fascinating children's books for all ages were never so great as at the present time, the dismal fact remains that only a very small percentage of the potential child reading public has access to them. Displayed on bookstore tables, or on grimly supervised school-library shelves, or still more grimly supervised general-library shelves, they are too often made inaccessible to the very ones who would thrill over their perusal and who might, if they had free access to them, form pleasurable reading habits and attitudes that would follow them all their lives. Somewhere between the lock-and-key method—which affords aid and comfort to nobody except the adult guardians of books—and the completely unsupervised use of them—which nobody would argue for—there ought to be, in every school and in every community, branch, or public library, some workable and practical method of circulation that would not only make it easy for juvenile readers to borrow new books they would like to read, but would actually encourage and stimulate them to do so consistently throughout the entire school period.

There is a great deal of disagreement among parents and teachers about the effects upon children of the new and universal comic book. Like much of the entertainment provided by radio and screen, the comics make cheaply and easily available to children a fascinating hodgepodge of adventure, thrill, mystery, and hero stuff. They are probably on the whole no worse than radio or movies.[8]

[8] It is a somewhat startling fact to contemplate that some of the popular cartoon characters familiar to American comics readers are published currently in as many as ninety countries of the world, and in more than thirty languages.

The best of them are undeniably interesting, surprisingly authentic in costuming and setting, and probably do actually stimulate children to read more of the same sort of material. A few teachers, including Sunday-school teachers, approve comics, and actually encourage their children to follow the colorful careers of their heroes as they penetrate the ether, ride the skyways, challenge the Martians, or merely relive the moving events of history, both profane and sacred. The worst of the comic books, on the other hand, are bad indeed from most points of view.

Many studies have been made of children's reading interests and tastes. Possibly the list following this paragraph includes most of the juvenile preferences as librarians, teachers, and observant parents understand them. There is, of course, wide individual difference in these matters, some children favoring one type at a given age, others preferring a different one. Some children, moreover, it must be recognized, do not care for reading, in spite of previous good teaching and abundant present access to books. Other children would rather read than do almost anything else during play time. Sometimes reading interest goes in waves, a child now being enthralled by reading, now caring little for it. Tastes and preferences change, too, as a child grows older. The list follows:

Animal stories;
Adventure and thrill;
Juvenile action;
Mystery;
Surprise and suspense;
Railroad;
Airplane;
Sports;
Humor;
Stories about children;
Domestic life (girls);
Romantic tales (girls);
Detective;
Western and cowboy;
Purposeful reading;
Mischief;
Sportsmanship;
Nature lore;
Exploration.

PERTINENT QUESTIONS FOR DISCUSSION

1. What support for the Schiller-Spencer theory of play can you adduce from observation of your children on the playground? for Hall's theory? For Patrick's? For the Groos theory?
2. Cite examples from observed play that indicate its self-realizational aspects.
3. Show by examples how play sometimes involves hard work, fatigue, and even self-denial. How then does play differ from work?

4. Give examples of play activities that develop neuromuscular coordination and motor control and precision.
5. In what ways do the games and play activities in which your children engage increase mental powers and ideational content?
6. What personal experience in or observation of children's play has indicated to you that play may be a strong stimulation to fancy and imagination?
7. Give an outstanding instance in which children's play that you have watched or supervised has had patently socializing value.
8. Do you agree that as a rule the activities of the schoolroom fail to tap very deeply the emotions of children?
9. Observe one or more gangs or sets among the children on your playground. Try to estimate the influence exerted over them by membership in or identification with such organizations. Find out as much as you can informally about the composition and ideals of the group.
10. Identify several pairs of chums among your children. What values and what liabilities do you note in such friendships?
11. List, on a seasonal basis as the year progresses, the favorite games and sports of your children.
12. Out of the corner of your eye observe situations involving quarrels and disputes that arise on the playground during a ten-minute period. How are they usually settled?
13. Do you recall having had an imaginary playmate at any time in your own childhood? If so, record some of your retained impressions of the experience. Do any children known to you have such companions?
14. Can you cite any evidence of the irksomeness to children of rules and regulations governing their play? Any evidence of a dawning respect for them?
15. Survey the motion-picture habits of the children under your charge. Find out how often they attend theaters, on the average; who of them rarely or never attend; what types of pictures are most popular among them; who are their favorite actors and actresses.
16. Can you observe in your children's conduct, attitudes, opinions, etc., evidence of any influence that movies are probably exerting? Be specific.
17. Survey the radio habits of your children. Is this form of entertainment popular at their particular age? What programs do they like best? Least?
18. Find out what books and magazines your children commonly read. What kind of story appeals most to them? What other

kinds of reading material do they enjoy? Do you feel that there are readily available to them plenty of materials adapted to their need and liking?

19. Have you any data regarding popularity of "comic" books among your children? You will find it worth while to procure some copies of such books and try to form a sympathetic judgment regarding them.

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CHAPTER 6

SOCIAL DEVELOPMENT OF CHILDREN

Some Children To Identify in Your Room

A child who . . .

(1) shows a low degree of socialization; one who shows a high degree;
(2) shows an outward, seeking thrust of personality;
(3) shows a timid, backward-looking, suspicious pull-back of personality;
(4) is racially unabsorbed by the group;
(5) gives evidence of being a juvenile tyrant in his home;
(6) has been a sheltered, imprisoned, overguarded child at home;
(7) because of mental dullness is unacceptable in the group;
(8) because of drabness of personality is socially unacceptable;
(9) possesses a winsome personality that favors easy socialization;
(10) typifies Buehler's "socially dependent" children;
(11) typifies her "socially independent" group;
(12) because of health condition suffers in social development;
(13) is more socialized in some areas than in others;
(14) is up to expectation in social development for his age; one who is below;
(15) gives evidence of being pampered at home;
(16) gives evidence of being a "young bargainer" type;
(17) is undisciplined; is overdisciplined;
(18) manifests traits held dangerous by Wickman's mental hygienists;
(19) manifests some traits condemned by Wickman's teachers.

GENERAL ORIENTATION

In the adult world of men, he who is socially ill-adjusted lives under a severe handicap. Those fortunate mortals who know how to live harmoniously and acceptably with their fellows are the people best able to achieve their purposes. Incivility, selfishness, self-centeredness, inferiority, envy of others, a hostile personality—these are expensive liabilities in any individual whose pathway crosses and recrosses, as it is bound to do, the pathways of others. It is little

short of amazing, when one stops to consider, how many people there are with whom one rubs elbows from day to day who are socially infantile and whose total life experiences have failed to make them companionable and attractive members of human society.

It is an unfortunate fact that it is in man's social experience that least progress has been made as the race has pulled itself up out of the primitive estate. Physically, man has literally learned to move mountains; technologically, he has conquered the earth and the sea and the skies; he has learned to project himself across the ether and into the stratosphere; he has studied the art of war and has learned to bring desolation and annihilation to his neighbor. There is no limit, it appears, to the outreach of his mind and his hand.

But with all his physical and technological achievements, he has failed to learn how to live peaceably and cooperatively with others. The civilization he has builded is like a house constructed upon the sands, for the essential foundations of social insight and social purpose have been left until the last. If the towering civilization he has erected is to be saved from collapse, arduous excavations into the neglected social foundations will have to be undertaken. Social and human engineering alone will salvage the structure of our society.

In the earliest years of life, socialization gets its start, and properly so. The unsocialized child is father to the unsocialized man; the sequence is inevitable. From the earliest weeks of infancy when the child is learning to understand the people in his environment, and to adapt himself to them, he is undergoing whatever socializing process the environment affords. Through the toddler stage, in which he is delving down into the basal interpretations of the people performing in his midst, and on into the nursery school and kindergarten period, with its widening circle of human contacts, and beyond into the elementary-school period, with its plethora of social situations to be interpreted and adapted to, the child is undergoing a continuing process of socialization, depending upon the nature of his own peculiar surroundings and the interplay of other personalities upon his own.

SOME HINDRANCES TO SOCIALIZATION IN THE CHILD

But this process is not all smooth sailing. The mere circumstance that time passes and that the infant moves developmentally

through the succeeding stages of childhood is no guarantee that his social evolution is proceeding satisfactorily. If such were the case, and his social side "just grew," we should have no problems of anti-social conduct, of delinquency and waywardness, or of inhibited personality later on. There are several influences that definitely retard the social maturation of a child. We shall refer to some of the more obvious of them in the following paragraphs.

1. General Home Inadequacy

As we have already indicated, the process of humanizing and socializing the child goes on constantly from the earliest weeks of his life. Since this is so, it is obvious that the direction this evolution will take is conditioned originally upon the adequacy or the inadequacy of the home and parental influence. Every social worker knows that some homes hold themselves obstinately aloof from the community around them. Homes of this type are deemed by their makers to be complete in themselves, with little if any need for interhome and interfamily intercourse. The neighbors are looked upon somewhat askance, and their children are regarded as wild and dangerous to the surrounding juvenile morale. Set down, it may be, within the precincts of a large city, such places of human habitation become, instead of houses by the side of the road, houses secluded in a forbidding and impenetrable wilderness.

The obvious difficulty with such homes and such families is that their adult members are themselves only partially evolved in the social areas of living. By virtue of a false sense of self-sufficiency, or of an exaggerated introversional or involutional psychosis, or of a profound persuasion of superiority to the common herd, or of some other colossal conditioning, adult homemakers of this sort maintain themselves and their affairs in a studied aloofness from the teeming life around them. The effects of such social isolation upon their children are obvious. Other things being equal, a child desperately needs, when he ventures forth from infancy into childhood, and from the narrow environment of home to the wider one of school and gang, to be activated by an outward, seeking drive from within himself rather than by a timid, backward-looking, suspicious pull that tends to draw him from the opening avenues around him. Parents are, in the first instance, the chief determiners of this outward thrust or this backward pull.

In a country made up of cosmopolitan and widely differing racial and nationalistic groups such as our own, we shall find, too,

isolated culture patterns that hold some families imprisoned on tiny culture islands that dot the vast sea of community and neighborhood life. Children who come from culturally isolated homes are apt to bring with them much of the prejudice and the cohesive loyalties with which they have been impregnated during the early years, and hence to find it difficult if not quite impossible to make a proper social adjustment to individuals from other and different patterns of culture. This condition is particularly unfortunate in the case of single foreign families that live in non-foreign neighborhoods, and which have little or no opportunity to mingle culturally with their own nationals. The lack of social osmosis which these people suffer is often noteworthy and pathetic. Their children, more or less carefully and religiously indoctrinated, tend to remain lonely and socially unabsorbed on the playground and in the schoolroom. Among groups of children from Little Italies and Ghettos and Chinatowns, there is likely to be far better social maturation than can be experienced by a child from a single foreign family who finds himself in a neighborhood where there are no other children of his own extraction.

2. Adult Unwisdom in Handling Children

Ideally, every contact of parent with child should foster the child's social maturation. Actually, unfortunately, many of these contacts that take place within the family setting operate rather to retard or impede a child's social evolution. The biological phenomenon of parenthood carries with it no guarantee of intelligence and wisdom in handling the offspring. In consequence, we have the frequent spectacle of total unwisdom in the training and disciplining of children, parents ranging all the way from helplessness at the one extreme to complete wisdom and adequacy at the other. To a considerable degree good parents are born, not made, and fit themselves so smoothly and perfectly into the routine of child nurture and training that good child growth in all areas is a foregone conclusion. This does not mean, of course, that poorly equipped parents cannot be taught to become reasonably adequate and successful in their supervision of the development of their children. As a matter of fact, very much may be done in education for parenthood and for the care and training of children. Only in rather sporadic instances thus far in our social history, however, has any concerted effort been put forth by society in this direction. The need is great. We train teachers rigorously in this area; parents,

we allow to train or mistrain themselves by a dubious process of trial and error.

The bell in a child guidance clinic rang persistently some time ago. When the secretary placed the receiver to her ear she heard a plaintively weak voice asking that a social worker be sent forthwith to the home of the voice. Entering the outer door shortly afterward, the social worker who had been delegated to answer the appeal was met by a glass paperweight shied past her ears. Making her way into the living room through whose open door the missile had been aimed at her, she found the 2-year-old son of the family in the middle of the floor as the principal actor in a scene of destruction. He had already torn a number of pages from some books that he had gotten into his hands, thrown a doorstop against the window pane, and bestrewn the floor with all manner of debris. On a sofa at the far side of the room, a towel wrapped about her head, lay his mother, fully dressed and helpless to protect herself and the family possessions against the aggressive behavior of her son. "Oh-h-h!" she murmured despairingly to the worker, "That boy's a *devil!* What shall I do, what shall I do, what shall I *do?*" Centrally placed in this little household drama, the boy in question was proceeding as best he could to live up to the reputation which his mother was giving him!

This is a rather extreme example of what is meant here by the unwisdom and the ineffectualness of parental handling of children. Other examples but little less startling may occur to the mind of the reader as he makes a brief mental inventory of his own acquaintances who have in their hands the disciplining and training of children. Threats, usually never fulfilled; yielding to a child's whims and importunings without even a semblance of holding out; making compromises and receding from enunciated principles and rules to avert tears or a temper tantrum; mute and helpless endurance of juvenile tyranny and obstreperousness; rash promises made for conduct that should be expected rather than rewarded in advance; spineless assent to projected ventures and actions that should not be countenanced; spoiling and procrastinating and excusing and mitigating and condoning, and the like—these forms of parental indulgence or impotence make it extremely difficult for any child to achieve any appreciable degree of maturation in the social area of his adjustment. The school experience, coming into the picture at the end of five or six years of such faulty adult handling and training of the child, is handicapped at the very outset in its task

of redeeming and reconstructing a social consciousness. The wonder is, not so much that some children grow up through the school years unsocialized, but rather that, in spite of earlier parental mishandling, so many of them achieve an ultimate maturation in the social area!

In this same category of parental ineffectualness must be mentioned also the frequent lack of consistency between parents and sometimes grandparents, aunts, uncles, *et al.*, in child training. In a home where one parent is overindulgent and the other overstrict, children learn very soon to whom to go for special privileges, sympathy, favors, pardon, etc. Social maturity in the sense of recognition of accepted and universal rules of conduct, of inexorableness and consistency of attitude, and of honest and faithful submission of oneself and one's own will and wishes to those of others can hardly be promoted in families where there are obviously double or triple standards of approved or accepted conduct and values to which the juvenile is successively exposed.

3. Isolation from Other Juveniles

Socialization of a child, even though the home from which he comes is an ineffectual one from the standpoint of encouraging normal development in this area, may be yet accomplished to a satisfactory degree through his subsequent association with other children. Indeed, with anything like adequate guidance, normal socialization is bound to take place through such interplay of personalities at the childhood level. We have good evidence to indicate that when, due to geographic isolation from other children of a similar age over an extended period, a given child is compelled to grow up without the influences exerted by companions he will lack the social maturation achieved normally by other children of his age group. Children living in scattered homes in rural communities, for example, will manifest this deficiency to a recognizable degree.

But geographical isolation is not the only form of isolation from which certain children suffer. There is also an age isolation that reacts quite as negatively upon the social development of a child as does the accident of geographical isolation. If, for example, the other children in the family are much older—or much younger—there may be a failure of normal social osmosis in a given child. Or if neighborhood children do not include some of a child's own age group with whom he can associate freely, the same lack of social stimulation may retard or stunt a child's evolution.

There is also frequently an enforced isolation imposed by parents who for one reason or another are unwilling to permit free and untrammeled play and social intercourse with the children of the surrounding neighborhood. Sundry reasons lie behind this attitude. The most obvious is, of course, the fear of contamination. Some mothers live in constant dread of disease and fear that if they allow a young child to play indiscriminately with other children in the neighborhood they will be subjecting him to the certainty of contracting from them some of the children's diseases. Tragically, it is frequently the sheltered and imprisoned child who is by the sheltering rendered less resistant to bacterial invasion and who surpasses the less carefully guarded children in the number of diseases and deficiencies that assail him. There is a deal of maternal apprehensiveness, too, regarding ethical-moral contamination, too many children being restrained from romping with the common garden variety of children lest they be taught bad words, bad manners, boisterousness, and brigandage of the juvenile brand. Again, tragically, it is frequently the hothouse nurtured and protected child who, when he eventually escapes from his ethical vacuum, indulges in extremes of conduct to make up for lost years! The best socializers of a child are other children and there seems to be no way in which parental solicitude for a child can entirely replace the molding influences of other juveniles upon his unfolding self.

4. Limited Intelligence

The reflex influences of normal social intercourse among children are determined to a considerable degree by the intelligence of those who comprise the group. Those children who fall in the lower intelligence brackets ordinarily profit least by juvenile contact. A certain minimum amount of brightness is requisite if a child is to be accepted as one of the group and if the group influences upon him are to be positive and salutary. The dull-witted child tends to be overlooked, neglected, ignored; or else, at the worst, he may be ridiculed, made the butt of practical jokes, and be constant prey to the whimsicalities and savageries of more alert and clever juveniles. In either case, he tends to become more unsocial, or actually antisocial, rather than more socialized by these day-by-day experiences on the play field and in the school environs. Instead of unfolding and blossoming out, his social nature becomes involuted and he looks out upon the active and eager world of childhood furtively or perhaps even resentfully. He is never chosen on the

"team" or the "side"; he is not included in the plans for jollity and adventure; he is not taken into even marginal confidence in juvenile consorting and plotting; in the labors and the achievements of the day, in school and out, he is more or less excess baggage to be tolerated rather than appreciated and lauded. Even to the dull mind of such a child, the true picture of himself as others regard him cannot but penetrate eventually and, when realization comes it is likely to set in motion personality conflicts and crises that eventuate commonly in definitely unsocial and morbid reactions.

Even siblings will sometimes resent a dull brother or sister. The rather pathetic case of Ina May illustrates this frequent lack of sympathy and understanding of bright children for dull. Ina May had an I.Q. of 73, which placed her close to the border-line between feeble-mindedness and dull normal. Her mother had refused to admit to herself the low mental calibre of Ina May, which was thrown into sharper relief by comparison with her older sister and younger brother, both of whom were of very good intellectual capacity. In order to placate the mother, these two siblings would be meticulous, when the family was together at home, at mealtime, and in extra-school hours, to show deference and politeness to Ina May, and to ignore her dull responses. When the three children were outside the mother's surveillance, however, things were quite different. They would ignore her completely, or else they would fail to recognize her as their sister and would join in with their other friends in laughing at her because of the mistakes and gaucheries she was constantly making. In consequence, Ina May's personality shriveled, and she was thrust back more and more for security and status upon her mother, and her values turned inward rather than outward.[1]

5. Colorlessness of Personality

Unquestionably some children, like some adults, are possessed of drab, colorless personalities that do not attract other people. Temperamentally phlegmatic and prosaic, such individuals exist in good numbers in every sizable juvenile, and in every sizable adult, group. When nature endowed such people, she failed to include an admixture of enthusiasm, alertness, eagerness, and warm human sympathy. She may have made them brilliant or dull; beautiful or homely; long or short; the significant fact is that she overlooked emotional tone, warmth, and personality color. In consequence,

[1] "The case of Ina May," *Understanding the child* (Boston: Massachusetts Society for Mental Hygiene, April, 1932), p. 18.

other people do not warm up to them easily, and they tend as a result to be more or less solitary and unsocial. Often they realize their deficiencies, and make yeoman efforts as they grow older to correct them, meanwhile gazing wistfully at the easy acceptance with which their friends are regarded. Often they are totally oblivious of their personal inadequacies and are content to be as they are, civil, cool, and aloof.

You will observe among your children that this deficiency in social endowment already casts its shadow before. Some of the group of juveniles lack the positiveness and the social perception to endear themselves, or even to commend themselves, to their mates. They are solitary children by predisposition. This should not, of course, dim our eyes to the fact that socialization depends to a large degree upon environment and opportunity and training; but it should help us to understand why, in spite of our best efforts, some children remain largely untouched by the social ebb and flow of the juvenile tides around them.

Dr. Charlotte Buehler distinguishes in this connection three quite different social temperaments in babies.[2] There are, first of all, what she calls the "socially blind," who are quite impervious to socialization; second, the "socially dependent," who are quite at the mercy of others; and last, the socially independent who, while getting on famously with others, can detach themselves at will and proceed on their own independent projects. It is, obviously, the first of these types—the socially blind—who, unless the environment can redeem them, will tend to grow up into solitary and unsocial adults.

The same child will vary in his social or non-social reactions in different situations and at different ages and times. We need much more experimental evidence before we can be too positive regarding consistency of social or other traits in the developing child. There is abundant reason for concluding, however, that there are wide basal and original differences among children in their social predispositions, and that conditioning and training and the general experience of the environment may bring about considerable variations in the same individual under different circumstances. One striking bit of evidence of this fact is to be noted in the very obvious differences in social evolution between first-grade children who have spent a year in nursery school or kindergarten and children who

[2] C. Buehler, "The social behavior of the child," Chapter 12 in C. Murchison, Ed., *Handbook of child psychology* (Worcester, Mass: Clark University Press, 1931).

have been transported direct from the home to the first grade without the intermediate socializing experiences.

6. Health and General Physical Condition

In Chapter 4, we have referred at some length to the relationship between the health and robustness of a child and his mental and attitudinal fitness to do the work of the school. Following along an analogous line of reasoning, it is apparent that progressive and adequate socialization of a child is dependent in a large way upon abiding and abundant physical health. A child who is handicapped by a poor heart condition, or by an anaemic persistence, or by low vitality for one reason or another, is forcibly kept from vigorous and spontaneous participation in the harum-scarum free-for-all play enterprise of childhood, with all its socializing potentialities. While not necessarily wholly denied the developmental influence exerted by companionship with other children, such a child can hardly know the touch-and-go of rollicking abandon that his physically sound fellows are experiencing constantly. On the other hand, it is of course possible for him to develop compensating social traits such as patience with his own lot, keen interest in the prowess of others, a maturity of outlook, and perhaps a philosophy of life that may be well beyond his chronological age. These achievements, too, are social gains and have distinct maturational value.

7. Inadequate or Unrealized School Opportunities

In a far-flung nation like ours, where schools are widely divergent in the adequacy of their financial support, the educational opportunities of some children cannot begin to compare with those of others. Small, poorly supported, poorly taught schools of necessity reflect themselves in their juvenile products; just as do, on the other hand, larger, better supported, and more capably taught schools. From the standpoint of social growth and maturation, children who are introduced to the materials of learning and of culture in meager and threadbare circumstances, or who are hemmed in by a curriculum that is archaic and ill-adapted to the needs and opportunities of the present age, or who lack the equipment and leadership for social play, sports and athletics, will be disappointing in their social insight and purposes, and limited in their social skills and graces.

Much of the modern emphasis in our leading educational communities has been placed upon a socialized curriculum and upon

activity learning. If the educational philosophy behind this setup is sounder than that which underlay the traditional schools of yesterday, it would seem to follow that those schools that have failed to keep up with the procession can hardly be expected to turn out an end product that can hold its own socially with other children trained in the more modern style. The old mythological school with Mark Hopkins on one end of a log and a boy on the other is today hopelessly archaic. There remain few Mark Hopkinses, no logs; only boys remain, and the solitary in-pouring of knowledge from Hopkins to the hypothetical boy could hardly be expected to fit a mid-twentieth-century lad for successful and confident participation in the life of the community into which he is shortly to be catapulted. Only through the give and take of socialized, participative learning can the modern child be equipped to live in a socialized, participative world.

Even in a well-set-up and well-supported school, however, there is no inevitable guarantee that each child will realize the opportunities that are there, freely offered. Teachers must always grapple with the de-energizing and discouraging effect of failure upon the socialization of the individual child. If you will try to note the insidious and undermining effects of failure upon the social nature and the personality of a chronically failing child, you will be able to understand the profoundness and the seriousness of this condition. Far more than do adults, children probably taste the essential bitterness of failure. To tasks that are beyond them; to expectations to which they cannot live up; to chiding and sarcasm and reproof which pour upon them from the lips of occasional teachers; to disparagement and belittlement from parents, teachers, and even sometimes from mates; and to miscarried efforts that come back in boomerangs of red-inked margins, failing grades, disappointing report cards, and the like, the scant resilience of child hope and ambition cannot be expected to respond aggressively and persistently.

Failure is a harsh word, at best. Unspoken, it may represent a disconcerting inner indictment that militates against confidence, ambition, generosity, appreciation, hope. You will do nothing in your perennial contacts with your pupils more replete for them with happy and adequate social attitudes and outlooks than to safeguard them against the shock of repeated failure and discouragement. Only callous and indifferent children, or children who can compensate by adventurings far afield socially or morally or both, can submit to this devastating influence. For children of normal sensibilities

and possessed of normal feelings, the specter of failure ahead or already present is a grim experience indeed.

8. Conflicting Standards in the Community

Parents, on the whole, envisage for their children high standards of conduct and behavior, and endeavor so far as they may be able or equipped to train them to be good citizens and good people. Beside this brooding home influence and expectation that accompany every child as he passes over the threshold and out into the world of school and community living, another influence rears itself. The child shortly becomes aware of this and of the wide disparity between its standards and those of the home to and from which he comes and goes intermittently. He learns, for example, that the honesty and truthfulness he has been adjured to practice and emulate exist only relatively, or perhaps not at all, in the community outside. Obedience, clean speech, frankness, cooperation, sympathy, and the like, as he has become familiar with them in the restricted arena of home events, run head on into disobedience, foul speech, craftiness, selfishness, and meanness in the wider arena of events beyond the home and the yard. The socializing process parents have initiated in their little children may thus be sharply checked when these same children grow old enough to venture forth upon the streets of men and to experience new standards of social and civic conduct.

DYNAMIC FORCES IN THE SOCIALIZATION OF CHILDREN

Socialization is not to be interpreted entirely, however, as a resultant of external forces applied to the individual. Potent as these agents are, they would certainly be inadequate to achieve their end were they not supplemented by the existence within the person himself of a natural predisposition in the same direction. We have already referred in previous chapters to a basal instinctive urge in everybody in the direction of self-expression and the projection of the ego upon the surroundings. A significant phase of this impulse is the natural interest a child has in others about him. Since people are to be in no small part his principal medium of self-expression, they possess for him the greatest interest and significance, which is, in itself, an inner dynamic force toward his socialization.

What other people are doing, or can do or hope to do, intrigues us all, from child to man. As human beings we enjoy watching other

people, reading about them, hearing them tell of their experiences or exploits. Growing children are no exception to this rule of universal human interest in others. They are intrigued from their earliest days by man's occupations; by his adventures and his machines; by his ships and his mills and his factories and his skyscrapers; by his farms and his mines and his technologies. From this interest in the material creations of man to the problems of human social and cultural relationships with which he is perennially confronted it is but a step. And it is but one other step to the achievement of a sense of realization of one's own potential place and responsibility in the social drama of tomorrow when one has passed from the role of passive childish observer to that of active grown-up participant in the great world of affairs.

Allied with this natural interest that children have in other people, and arising from the same instinctive root, is their strong desire for friends and companionship. Since this matter was discussed at some length in the preceding chapter, we shall do no more here than refer to it as a dynamic means of socialization. If the opposite were true and a child tended to shrink away from rather than be drawn toward other children, it is conceivable that he would never achieve real socialization in a practical and participative sense. The world into which he grew up and of which he ultimately became a part would then of necessity be a world without those human impulses and characteristics that make it agreeable and livable and hopeful. The strong urge that normal children have to fraternize with other children and to cast their lots with them affords a universal potential toward the eventual socialization of them all. The passion for play, competition, companionship, co-adventuring, emulation is at once a drive toward personal aggrandizement and achievement, and toward social consciousness and adaptation. In grasping for himself, a child learns also to yield; in realizing himself, he learns also to appreciate and value others; in demanding and receiving, he learns likewise to grant and to give. These are socialization goals that could probably not be achieved at all by the race if its children did not seek them early in their juvenile contacts.

HOW MUCH SOCIAL GROWTH SHOULD A SIX-YEAR-OLD CHILD HAVE ACHIEVED?

One could hardly expect that the long process of socialization would be very much advanced during the first six years of life. In a

sense, the process of complete socialization is never completed, at least not until the mellowing and refining that accompany middle life have occurred. Nor can one say that there are definite milestones along the way, and that with the reaching of each one a certain amount of socialization will have been gained. Not only are increments of social experience unequal but there is a cumulative phase in the socializing process, a later experience tending often to have greater value than an earlier one of the same proportions and nature. With increasing powers of perception, judgment, and reasoning, and with a constantly expanding frame of reference, an individual should be expected to be a socially wiser and more acceptable person at twenty than at ten; at forty than at twenty. Growth in this area of human evolution seems to follow a geometric rather than an arithmetical progression.

Be that as it may, there are a few basal achievements in his socialization that every child should be expected to have attained by the time he enters school at six. Certainly in the following areas and relationships his teacher has a right to expect him to be tolerably proficient:

Reasonable self-control in somewhat trying circumstances;
Obedience to simple rules by which all are governed;
Cheerfulness in sharing, even at some inconvenience;
Appreciation of the rights of other children;
Cooperative attitudes in work-play situations;
Order and control in passing lines, crossing streets, etc.;
Reasonable courtesy and politeness;
Simple precautions in protecting oneself and others from contagion.

Perfection is not, of course, to be looked for or expected in these or in any other areas of social living at the first-grade level. It is not, however, too much to hope that most six-year-old children will show an appreciable degree of acceptance and practice of these standards. We cannot perhaps hope that all the children will demonstrate all of them all of the time. If most of them exemplify most of them most of the time, we should probably be content, realizing that achievement in social living is likely to be a slow and often uneven process.

SOME SOCIAL MALADJUSTMENTS IN SCHOOL CHILDREN

A good many children show, when they enter school, unfortunate signs and symptoms of social maladjustment of one sort or another.

These originate, obviously, for the most part, in the home and the parental example such children have been given and in the handling and disciplining they have received. For every one of the thirty million or more children enrolled in our schools, there are two parents who are constantly impressing their own social or unsocial natures and standards upon their offspring. Legions of these adult guardians of infancy and childhood have themselves never grown up emotionally and socially, but have remained infantile, emotionally immature, or have perhaps been unhappily mated. Many of them are totally unsuited for parenthood and child rearing. Such inadequate and unsocialized adult personalities will, of course, profoundly affect the outlook, attitudes, and values of their children. If it could be guaranteed that every pair of parents were themselves socially adequate and well-adjusted, social maladjustments in children would be reduced almost to a vanishing point. As matters stand, it is not so remarkable that so many children are so poorly adjusted socially as that so many are satisfactorily and happily adjusted.

In the following pages of this chapter we shall identify a few of the socially inadequate child types,[3] and endeavor to make some suggestions by which teachers may hope to bring their redemptive skill to bear upon them.

Back of the masked exteriors of some of these children exist social inadequacies, inferiorities, unhappinesses, fears, inhibitions, resentments, and rebellions that are not only exerting profound influence over their present social status, but will continue in greater measure to condition unfavorably their future socialization. To penetrate these masks and set in order the beneficent influences of social redemption a teacher must be as wise as the wisest of parents, as skilled as the cleverest of psychiatrists, as resourceful as the most experienced of social workers. Though by training she is none of these, she is compelled by stark necessity to be all of them, in turn.

1. The Pampered, Overdependent Child

The spoiled, overdependent child is found in good numbers in most primary grades. He may be the only child of parents who have sheltered him carefully from all the little problems that every child ought to face and who have selfishly kept him from consorting with other children of the neighborhood or the street. He may be

[3] Adapted from the author's *Mental hygiene for the classroom teacher* (New York: Pitman, 1939), by permission of the publishers.

the youngest child; he may be a favorite child; he may be one who has especially endeared himself to his parents because of frequent or long illness, physical underparness, or the like. For these or other reasons, he has been consistently "spoiled" and babied and pampered and petted. He has been led to suppose that the sun rises and sets in him. Instead of growing out of swaddling clothes and away from apron strings, he has been encouraged to cling tenaciously to his parents. His infancy has been abnormally prolonged. He has been carried when he should have walked; kissed when he should have been spanked; rocked or sung to sleep when he should have been forming independent sleep habits. He may have been dressed as a princeling and seated in a chair when he should have been dressed in rompers and been tunnelling in sand or snow. And then, when the hands of the clock can no longer be held back by his unwilling elders, and he has arrived at school-entering age, he is deposited at the school door in tears, by a tear-stained mother, who takes leave of him as though for the last time on earth. And the door of the school swings shut!

In the schoolroom setting, the "Mama's boy" type is thrust at once among other children of all types—the Sawyers and the Finns, the Orvvies and the Hermans and the Vermans, the Skippies and the Stubbses, and the plain garden varieties. Throughout the previous six years of his brief life, he has never been taught or encouraged to fraternize with other children, to rely upon himself, to assert himself aggressively on occasion, and on occasion to cooperate actively and wholeheartedly in a common task. Accustomed to babying, he is now confronted with a situation in which special adult solicitude for him, apart from and before everybody else, is lacking. It could hardly be otherwise than that he will stare about him in bewilderment, avoid normal ego-projection, and shrink timidly back into his own inadequate self. To play happily with the others; to cast in his lot with theirs in a common enterprise; to learn to adapt himself to half a dozen different child types; to feel secure and confident under the domination of a new adult—these things are at first next to impossible for the overdependent child.

To escape from such trying circumstances the pampered child is likely to seek refuge in the childish mechanisms he knows: moroseness and aloofness, solitude, tears; perhaps even vomiting, nervous paroxysms, or other physical disturbances that a sympathetic organism can conjure up to aid and abet the whims and purposes of an inadequate or unsocialized personality. Carried to its logical devel-

opmental conclusion, a personality thus warped in early childhood becomes later on the selfish, uncooperating, secretive adolescent; and later still, the unsocial, withdrawn, self-pitying adult. To prevent this unfortunate denouement, the teacher must make use of all possible devices in the encouragement of wholesome social habits.

At first the teacher manipulation of the scene will have to be extremely delicate and ingenuous. An occasional instant of leadership, a fleeting moment of triumphant achievement, a faint breath of public approval—these are about all she can angle for during the early weeks. Even such trivial goals as these will not always be achieved, and the teacher will be disappointed over and over again before she can discern the genesis of any appreciable amount of socialization. The ill effects upon the personality of five or six years of parental babying cannot be counteracted in a day, nor in a month, nor maybe even in a year. But as such experiences multiply and as they are supplemented by others in which the child finds himself doing what the others are doing, enjoying what they are enjoying, talking about what interests them all, treated as they are treated, they will be found, little by little, to counteract the socio-emotional aspects of prolonged babyhood and to permit a normally socialized personality to emerge.

Not infrequently a teacher makes the mistake of laughing at a "Mama's boy"; or of ridiculing him before the other children; or of punishing him for behavior that is obviously only logical for him, in view of his home conditioning. Occasionally, too, a teacher, reminiscing about a long-past day when she was herself a happy and perhaps an oversheltered child, by a subtle psychological mechanism begins to envy or to resent such a child who stands in a sense for what she once was. Resenting him, it is easy for her to be harsh toward him and to derive satisfaction from his discomfiture.

The completely adequate socialization of an overdependent child is a mutual task in which not only the teacher but the home are and must continue to be jointly engaged. The ideal situation would be for a child guidance worker or a social worker or a visiting teacher to counsel and advise the parents of such a child, helping them to recast their values and goals for him at the same time the school is at work upon the problem of his socialization. In relatively few homes, however, can this parental re-educational process be carried out. Much of the home transformation, if it occurs at all, will have to be brought about more or less naïvely by the parents themselves. As time passes on, they may be expected to realize in some measure

their own mistakes and to act accordingly. Moreover, as their child is transformed slowly but surely into an adolescent, and as he reflects increasingly the extra-home influences of school and teacher and gang and community, they should not only grow reconciled to the new order—however grudgingly—but should welcome it as undeniably superior to the old and the infantile.

2. The Young Bargainer

As adults, most of us have forgotten the power we once wielded over our parents and the other personages in our small world, compelling them to dance to our bidding. How the young child discovers this potential power and by what process he hits upon the particular coinage that is effective in the barter is not easy to see. But hit upon both he does, and unless the adults with whom he carries on his bargaining are clever enough to detect its subtlety, and have the stamina to resist it, the youthful seeker after his own way may succeed beyond even his own original dreams.

The mechanism usually begins in early babyhood. A child is put to bed for the night, for example. The mother starts to leave the room, but is deterred by weeping and tears. Turning back for a moment to fondle and reassure him, she lingers until his sobbing has ceased and he falls asleep. Next night, the same scene is re-enacted; and again the next; and the next. Shortly the child has learned that through the medium of tears he may achieve his own way and pleasure, and the parent has lost the battle. Somewhat later, he learns that this same medium may be used not only to secure privileges or favors but also to avoid doing the things he dislikes. Thus, into and through the toddler stage he carries his power, using it constantly. Refused a penny or a nickel when he wants it, bidden to get ready for bed when he does not wish to go to bed, advised to eat his spinach or drink his milk when he does not choose to do so, he trots out his unfailing threat of tears and tantrums and gets his way. Still later, deciding he does not wish to get ready for kindergarten, or Sunday school, or a trip to Aunt Jane's, he takes refuge in the perennial tears and sobs, and his parents are stampeded into humoring him in his obstinacy. In many a home a social tyranny exists, and the tyrant who dominates the scene is the youngest member of the family.

Such a juvenile tyrant is as shrewd as he is tyrannical. He does not pay more than he can help for his favors. He learns shortly to gauge the volume of his tears or the size and duration of his tan-

trums to the boon for which he barters. It takes him a surprisingly brief period of experimentation in his earliest years to calculate the values and relative costs. He does not squander his capital in trade. Unlike young Franklin, he never pays too much for his whistle, but he invariably gets it.

To re-educate in the school such a distorted and unsocialized personality is no easy task, either for the teacher or for the unfortunate victim. When the world has always danced to one's music, to find that one pipes now in vain brings, at first, consternation. More and more of the tried and trusted coin is poured out, but to no purpose. Sobs and paroxysms, instead of securing favors and soothing words, bring from the teacher-parent only firm refusals, and from the surrounding child actors in the schoolroom drama they bring at first mystification, then amusement, and finally indifference or good-natured tolerance. Consternation gives place to bafflement, sulking, resentment, bitterness. In such a mental state, a child may do almost anything to escape an intolerable situation. He may play up worse tantrums than ever at home, in order to escape the unsympathetic environment of school; he may retire in high dudgeon into himself and remain haughtily aloof from the common herd that does not or will not understand him; he may become increasingly irritable and testy; he may develop psychoneurotic tendencies, such as introversion, daydreaming, inferiority, secretiveness, suffering hero, and the like. Or—and most fortunately—he may respond fairly soon to proper handling in the schoolroom and blossom forth shortly into an agreeably socialized individual.

The role of the teacher in this transformational process is, as in all others, a powerful one. If she shows the slightest inclination to barter with the child, the fight is lost before it is begun. To temporize with his idiosyncrasies; to humor and pacify him with special favors and dispensations; to handle him with more consideration than the other children are handled—these are to confirm and establish him in his impossible way of life. If, on the other hand, the teacher represents to him the embodiment of impartiality, justice, objectivity; if she uses with him no bribery, no cajoling, no bartering; if she does not pale at his first extraordinary efforts to coerce her; if she ignores, outwardly at least, his unsocial traits and sets herself the task of socializing and humanizing him, she will not ordinarily have too great difficulty in undoing the mischief that his parents have wrought during the preschool years.

Here again, however, as with the overdependent child situation

we have already discussed, the teacher's success at re-education will be to a degree restricted by the continuance of bargaining at home. It is probably true in most such cases, however, that the parents will by this time have grown so weary or frightened at the continuing conflict within the family that they will welcome the new opportunity offered by the changing status of the child and will be ready to make strenuous eleventh-hour efforts to redeem the home situation. Final and complete socialization of the child will obviously be jeopardized to the extent that the parents fail to cooperate and continue to permit a self-willed child to bargain his way with them through childhood. The end result of such failure at socialization during the early formative years, regardless of whether home or school or both are at fault, is to be seen in the spectacle of the grown-up individual from such a juvenile setting who finds himself unable to cooperate with others, who must always initiate and lead and can never follow, who is a misfit in any grouping, and who is insufferably selfish, self-centered, and egotistical. There are in the world altogether too many grown-up infants of this type who have never been socialized.

3. The Undisciplined Child

There is abundant evidence in our modern social scene that the old-fashioned concept of the bringing-up process is on the way out. If we have not yet reached the condition that produced Topsy, who just "growed" without benefit of training, we are unfortunately set upon that dubious pathway. Unquestionably there was much at fault with the old-fashioned brand of discipline. It imposed sometimes needless restrictions or severe restraints upon conduct; it deemed repression better than expression; it regulated rather strictly the activities of children; it frequently enlisted the rod as its ally. To the extent, however, that the older discipline promoted in children fundamental habits of orderliness, industry, participative effort, obedience, and insisted upon conformity with what was understood to be the accepted codes of morality and social ethics, its passing may prove to be unfortunate for the race.

Children grow up in too many homes today undisciplined. They are not required to obey even the simplest rules. They are free to go and come almost as they please, if not quite. They have little or no homework to prepare, and if they have any, nobody insists that they do it. They have long stretches of unfilled time at their disposal. Adults in their environment are preoccupied with their own affairs,

and have little time—and perhaps little inclination—to supervise and fraternize with their children. In consequence, the children are often thrown almost wholly upon their own resources. Lacking the wholesome training that in a simpler organization of society was afforded the junior members of the family by the necessity of caring for animals, doing chores and home tasks, running errands, and the like, children today are caught as are their elders in the swirl of hurry and bustle and constant movement, without the anchoring stays of a simple home economy of toil. Electrical equipment, bakeries, and corner stores have rendered unnecessary the earlier housework, cooking, and home manufacturing that once demanded time and attention from every member of the family. Modern children are in grave danger of becoming jaded, overstimulated, and sophisticated. They have few rules to follow, so long as they do not come too prominently or too frequently into conflict with contiguous adults and their purposes.

An undisciplined child in the school, when he eventually arrives there, presents a problem in socialization for the teacher. Thrown into a group with other children, he cannot be permitted to remain undisciplined. Vulgar or idle, his influence over the conduct and behavior of the others cannot be dismissed as unimportant. If he is unmannerly, coarse, selfish, or careless, he may easily inoculate others with his virus. For the sake of the other children, therefore, not to mention the cumulative ill-effects of the continuance of these unwholesome attitudes upon his own personality, the teacher must socialize the undisciplined child.

There must be substituted for his jaunty casualness and disobedience a measure of satisfaction in doing the expected and acceptable thing. This satisfaction may most commonly be brought about by seeing to it that the tasks assigned are challenging to the child's fancy, by maintaining a businesslike, aggressive atmosphere of accomplishment in the room, and by seeing to it that any individuals who are lax in their performance shall feel the disfavor of the group opinion as a whole. This last is a powerful influence for good, and the teacher may utilize it profitably in forging new social attitudes in unsocial pupils.

For the undisciplined child's idleness and laziness, born of an undisciplined will, there must be substituted industry and juvenile zeal for the schoolroom tasks. This may be brought about through the assignment of interesting or challenging commissions, and through the natural contagion that the common interest in such

projects supplies. For his coarseness and vulgarity, resultants of an early background that has been deficient in refinement and self-control, there will need to be substituted a decorum and a cultivation of good taste and sense of fitness. This can be achieved in part by the imitative influence of cultivation and refinement in the teacher, in part also by persistent and unostentatious training in good manners, and by the constant labeling of vulgarity, tawdriness, and coarseness as repugnant. Lacking the benefits of good discipline, an individual grows up to be either vain, sophisticated, and socially intolerable, or else crude, vulgar, given to excesses, and likewise intolerable in the social group.

4. The Overdisciplined Child

In an age of underdisciplining, one frequently finds families that are going to the opposite extreme of overdisciplining their children. In some instances this trend may be followed by parents who are up in arms against the laxness they see around them, and are resolved that their families, at least, shall be brought up with care. More often, however, it is probable that overdiscipline merely reflects parental infantilisms, bungling, or maladjustments of one sort or another. Overrepression, whatever motives may dictate it, denies a child normal expression of his urges to activity, sociability, and self-determination. From his earliest days, an overrepressed child has been subjected to strict and often unreasonable discipline. He has had his time budgeted systematically, it may be, with little account taken of his play and social needs; he may have been scolded and nagged and bullied into a servile obedience that has in it more of fear and hopelessness than of love and appreciation; he may be misunderstood, belittled, disparaged, and hence forced to bear a lot altogether too harsh for one small person. Fear that he might get hurt, or catch disease, or grow away from his parents, may have been basal reasons for the restraints that have been imposed upon him. The parents may have but shallow affection for him; or they may have the mistaken notion that the strictest discipline is obligatory if a child is to be brought up in the way he should go; or they may be convinced that social contacts and the freedom to make them at will in the childhood years mean contamination and sorrow ahead.

When he reaches school, the overrepressed child will be poorly adjusted to the scene that surrounds him. The modern school, by its very nature, is the antithesis of overrepression. It is organized on

the principle that children shall have opportunity to indulge their bents for sociability, cooperativeness, and self-activity. It presupposes that its charges can get on happily and constructively together, that they are animated rather by love and the consuming joys of childhood than by fear and dread and unhappiness, that they have much self-confidence and assurance, that they are eager for self-expression. The modern school, standing patently for freedom and self-expression rather than for restraint and cloistering, presents a difficult environment for overdisciplined and overrepressed children.

In such a school setting, a child of this type is likely to be greatly inhibited by fears of himself and of the consequences of his actions, and by lack of confidence in his ability and prospects. He is intimidated by memories of free acts that he performed innocently, but that turned out to be *faux pas* that brought him reproof and punishment. He suffers from a depressing inferiority complex that makes it difficult for him to join freely in the social activities of the schoolroom. The lightheartedness and spontaneity of the other children about him he can neither understand nor emulate. He expects the teacher to be like the other adults he knows—strict, harsh, uncompromising. He anticipates more hours of dull occupation, more days of methodical and weary budgeting, with a critical watch maintained over all by this strange adult. He feels timid, inadequate, out of place.

Two outcomes are possible. If he is by nature sensitive and timid, the chances are that even with the best teaching he will become only moderately adjusted, remaining somewhat introspective and introverted as long as he lives, and always facing the possibility of psychoneurotic behavior. If, on the other hand, an overrepressed child turns out, when he escapes temporarily from his captors into the school, to have spirit and independence, he may become a leader almost overnight and, if his newly released energies can be kept within bounds, turn out to be an easily socializable child. There is always the danger, however, that, having been so long repressed and held down, such a child will, when the break comes, swing like a pendulum to the opposite extreme of conduct and become incorrigible. Rebelling at the harsh restrictions that have been placed upon him, he may run wild in an effort to make up for what he has lost. No small amount of the delinquency of wayward and incorrigible children is traceable ultimately to the sharp reaction of young persons of spirit and personality against an early harsh environment

of overstrictness and overrestraint. The often-quoted but statistically unverifiable adage that "the minister's son is always a black sheep" depends for whatever modicum of truth it has upon the possibility of children who escape from early home repression seeking to compensate for their earlier overdiscipline by an orgy of license.

In the schoolroom handling of an overdisciplined child, the teacher must understand that whatever will give him self-confidence and the objective attitude should be sought after. A little more commendation in the early stages for things he does well than she would ordinarily feel wise for most children will help him forget his inferiorities. Provision of a large degree of freedom and gently persistent encouragement to use it constructively and openly, care that the other children accept him and behave toward him precisely as they do toward one another, and the building up of an atmosphere of friendliness, kindness, and healthful give-and-take will help vastly to socialize a child who has lived all his days under the restraint and domination of overstrict parents. When he has been taught to play happily with others, to forget his timidity in the absorbing tasks of the schoolroom, and to trust others about him, he will be drawn amazingly out of himself and will be well started on the road to mental health and integration.

HOW SOCIAL MALADJUSTMENTS AFFECT CHILD CONDUCT

Ideally, a child who is increasing satisfactorily in his social maturation will show growing control in most areas of conduct. Failing to develop in his social maturation, on the other hand, he will continue to indulge discouragingly in various selfish and negative attitudes and practices. Teachers experience, for example, a good deal of difficulty with lying and dishonesty, with teasing and bullying, with fighting, with hostile and unfriendly criticism of others, with selfishness and self-centeredness, with secretiveness and social withdrawal, with indolence and mental laziness. We have already referred in previous chapters to some of these negativistic traits and shall refer to others in subsequent ones. Mental hygienists as well as child psychologists are greatly concerned about such traits as these and their influence over ultimate adjustment and happiness.

One can do no better in referring to this important matter than to call attention to a highly significant study reported some years ago by Wickman.[4] Desiring to compare the opinions of teachers with

[4] E. K. Wickman, *Children's behavior and teachers' attitudes* (New York: Commonwealth Fund, 1928).

those of mental hygienists on certain commonly met antisocial traits in school children, this investigator secured ratings on a number of such items from some five hundred teachers and thirty mental hygienists. When he had completed the tabulations he found, as one might expect, general agreement among both groups of judges on the seriousness of such traits as bullying, stubbornness, selfishness, nervousness, cowardice, tattling, and the like. Likewise he found good agreement among both groups that certain other traits, like eneuresis, inquisitiveness, restlessness, quarrelsomeness, and desire to attract attention are not to be regarded as particularly serious, but may be perhaps developmental and incidental.

As to other and more serious behavior traits, however, Wickman found a wide difference of estimate between the two groups of raters. The following list includes some of those deemed by the teachers to be most serious, but least serious by the mental hygienists:

Masturbation	Impertinence
Profanity	Disobedience
Smoking	Disorderly conduct in class
Destructiveness	Heterosexual activity
Obscenity	Whispering

The above traits apparently indicate that teachers place a premium on submissive conduct and obedience to rules and regulations. Children who manifest no sex curiosities, refrain from smoking and profanity, and overstep none of the school ordinances are socially and emotionally acceptable. The reason why teachers approve children of this sort is of course obvious.

With the judgments of the teachers as to what behavior problems are the most serious, however, the mental hygienists were in strong disagreement. In the following list are some of the traits that they deemed most dangerous, and that the teachers deemed relatively unimportant:

Shyness	Unhappiness, depression
Suspiciousness	Overcriticalness of others
Unsocialness	Resentfulness
Sensitiveness	Dreaminess
Fearfulness	Desire to domineer

Here is a group of traits that worry the mental hygienists, for it is evident to them—and should be to us—that children who continue

to exhibit them in their behavior and conduct are not proceeding in the direction of socialization. A child who is profane, smokes, or is impertinent and disorderly, may be passing through only a stage of his development and certainly can hardly be expected to turn out to be an anti-social or an unsocial individual. A child who, on the other hand, retires into himself, shuns encounters with others, and incarcerates himself in an ivory tower of introversion is in for trouble ahead. In that direction lie psychoneurosis, psychopathology, social isolationism. It is easy to understand why the teacher raters gave a relatively clean bill for this type of pupil. He causes them little trouble in school, rarely becomes embroiled with others, is easily repressed and controlled.

Socialization of a child should eventuate in the conquering and uprooting of such negative traits as those adjudged to be serious by the thirty mental hygienists. Unquestionably, there are additional traits that might appear in a complete listing. In general, it is safe to conclude that any persistent form of behavior that keeps a child's attention primarily focused upon himself, or that restrains him from happy participation in the common tasks, or that drives him to seek unfair advantage over others through such devices as lying and bullying, or that confirms him in superior and critical attitudes toward others, exerts an influence in the direction of social myopia in the present child and in the future adult. The insightful teacher will enlist herself aggressively on the side of the mental hygienists in efforts to discourage such behavior in her children whenever and wherever it occurs. Instead of spending so much time and effort in scowling down the child who is obstreperous and takes liberties with the established rules, she will spend more in prying the introverted, unsocial one out of his shell and guiding him into a more happy and open social experience.

PERTINENT QUESTIONS FOR DISCUSSION

1. What evidence can you cite in support of the author's contention that man's social evolution trails his technological? Is there any contrary evidence?
2. Indicate some specific ways in which socialization takes place, even during infancy.
3. Do you know any home that holds itself in purposeful isolation from the stream of life around it? What is the motive?
4. Do you believe that good parents are born, not made? Cite individual examples of either or both types, as you may be able.

5. Have you had any professional experience with ineffectual parents? With parents (or grandparents) who are inconsistent in their joint handling of children in the home?
6. Make a study of some dull, mentally inferior child, in an attempt to determine how his socialization is affected by his low intelligence.
7. Can you observe any relationship between a child's physical condition or health condition and his social progress in the group?
8. Suggest ways in which the modern activity type of learning favors social development in pupils. Does it in any way retard such development?
9. Evaluate the satisfactoriness or unsatisfactoriness in the present social developmental stages of several of your first-grade children in terms of the standards enumerated in the list on page 151.
10. Sketch in as much of the conditioning home background as you are able in connection with observation of some child known to you who has been kept overdependent.
11. In what way or ways have you succeeded in making progress in the eventual socialization of an unduly pampered child?
12. Do you know any "young bargainer"? What is his stock in trade? How does he use it? With what results at home? At school?
13. What specific success have you had in aiding a juvenile tyrant to overcome his character defect?
14. Do you believe that the modern home is too lax on discipline? What evidence pro or con can you cite?
15. Suggest possible or hopeful ways in which an undisciplined child may be helped into better social adjustment at school.
16. Have you had any experience with overdisciplined or repressed children? In what way or ways have you been able to release them from their bondage through your efforts as a teacher?
17. Do you agree with the mental hygienists that such behavior problems as profanity, smoking, impertinence, whispering, etc., are less serious than shyness, unsocialness, fearfulness, unhappiness, etc.?

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CHAPTER 7

LANGUAGE AND SPEECH

Some Children To Identify in Your Room

A child who . . .

(1) has an unusually large vocabulary;
(2) has a very limited vocabulary when compared with others of his age;
(3) by his language identifies the type of home from which he comes;
(4) is mentally inferior, with a corresponding speech handicap;
(5) "talks out" a great deal;
(6) enjoys picture study and vocalizes his impressions freely;
(7) knows several rhymes, jingles, etc., before school entrance;
(8) likes colors and enjoys talking about them;
(9) is a ready dramatizer of stories and events;
(10) can interpret abstract terms better than most children of his grade;
(11) shows egocentricity in his speech;
(12) strings ideas together endlessly with connective words;
(13) shows evidence that his vocabulary is growing rapidly;
(14) has better success in manual than in oral portrayal of ideas;
(15) is given to naïve interpretations of meanings;
(16) persists in the "speech of the yard," is little affected by speech training;
(17) is strikingly deficient in articulation; one who articulates well;
(18) delights in mongrel forms of speech; uses much slang;
(19) is handicapped by organic defect somewhere in the speech apparatus;
(20) is beginning to stutter; a chronic stutterer.

GENERAL ORIENTATION

Speech represents unquestionably the greatest acquisition of the race. It lies basally behind all of our higher achievements. Only as he can express in language his thoughts and his goals can man ever hope to rise above the animal level of instinct and of random, purposeless behavior.

In one of the most interesting experiments ever conducted, Professor and Mrs. W. N. Kellogg, of Indiana University, took into their home a female chimpanzee seven and a half months of age.[1] There they brought her up over a period of nine months with their son, Donald, aged ten months at the start of the experiment. During the entire time efforts were made to treat the ape child exactly as Donald was treated. She was bathed daily; dressed in clothing; put to bed in clean linen; taught to walk upright; to sit in a chair, to climb a ladder, to rock in a child's rocker; to look at colored pictures; to romp and play with Donald, etc. She learned to manipulate a crayon, to drink from a glass, to show affection and chagrin, much like Donald.

When, however, it came to the question of a spoken language, the ape was decidedly helpless. The vocalized play so characteristic of Donald during the months of the experiment found no counterpart in Gua, the ape. She made no attempts to use her tongue, her lips, her teeth, and mouth cavity in the production of new utterances. There was no random prattle, no imitative vocalizing; only a warning bark, shrill soprano, parrotlike screams, and a whimpering whining, usually when emotionally aroused. The probabilities are that even had the experiment been continued over many years, the ape never would have developed articulate speech. Herein lies forever a great and impassable barrier between the human being and the animal.

For the school child, faced with the problem of mastering the content of elementary education, language becomes an indispensable tool. In language are couched all the facts and events of history, all the symbolism of mathematics, all the vast treasury of literature, science, and the humanities. Into whatever area of human experience the school leads its learners, all the guideposts and guidebooks along the way are decipherable only in terms of language and symbols. Other things being reasonably equal, of two individuals progressing up the educational pathway, the one who has the better command of language and the symbols of learning will inevitably reach the higher pinnacle. The educational wayside is strewn with people who have suffered educational mortality principally because they were not able in the comprehension of and facile in the use of language.

[1] W. N. Kellogg, *The ape and the child* (New York: Whittlesey House, 1933).

THE LANGUAGE AND SPEECH STATUS OF THE SIX-YEAR-OLD

Emerging from the preschool years of bursting sense experience and phenomenal perceptual acquisition, the child at the time of school entrance is already in possession of a surprisingly extensive vocabulary, varying of course with the stimulus his environment has offered to language development. Careful research has indicated that the child by the age of six years knows on the average about 2500 words. Obviously he does not himself employ all of them in his communication with others; he understands the meaning of that number, however. A part of the insatiable drive of growing up has been to catapult him into the world of speech and vocalization. Driven by his intellectual curiosities and his eagerness to learn, he has become master of an unbelievable number of words. From the time of the first "da-da" he has been encouraged by his family—as though he needed any encouragement—to express himself in articulate words. His naturally investigative nature brings him into physical contact with everything tangible in his environment, and from these contacts he derives increasing numbers of words and meanings. In manipulating his toys, in romping and playing with his pets and with other children, in observing the manifold family and neighborhood activities going on about him, in games and informal sports that ape the activities of his elders, in climbing, in swaying in trees, in throwing and pulling and pushing and tunnelling, in listening to stories, and in sketching and scribbling with crayons, in imitating and mimicking and dramatizing, and in the myriads of other juvenile activities that fill the lives of five- and six-year-old children, the youngster adds new words to his vocabulary, new interpretations of words and symbols, and ever-growing ability to express them.

In observing the five-year-old, one notes how incessantly he talks to himself. His vocal apparatus is unfolding and limbering up, along with his other muscular mechanisms, and he joys in exercising it quite as much as he does them. When playing with others, too, language occupies a prominent place in his projection of himself. It is unthinkable that a group of six-year-olds could play silently. Patient mothers and long-suffering grandmothers may sometimes object to the din of shouting and laughter and vocal extravagance that assails their ears whenever juveniles are loose in their midst. They know that vocal expression is as characteristic of children's play as is breathing itself; they realize its developmental value; and

they endure with the best grace possible any auditory fatigue that boisterous children may engender with their resounding voices.

There are of course, as suggested above, wide individual differences among children of school-entering age in their facilities with language. First of all, the intelligence of a child will condition to a degree the speed with which his vocal apparatus responds and the extent to which he is able to manipulate the spoken language. Duller children not only are slower of speech, but their command of words, phrases, and sentences is definitely inferior. As a matter of fact, makers of intelligence tests have long since realized that it is extremely difficult to construct such a measuring instrument without its being quite as much a test of language ability as it is of general intelligence. Language is an excellent index of intelligence at any level, and those children who are deficient in its use are frequently found to be deficient also in general intelligence.

In the second place, an individual child's facility in language at the time of school entrance will be conditioned by the opportunity he has had to use and to understand language in diverse relationships during the preschool years. The total family influence in promoting speech and language achievement in young children is considerable. Some parents encourage their children little or not at all in gaining skill in self-expression through vocal means.

The influence of the cultural background of the home upon the speech and language facilities of young children may be inferred by observation of the children in the first-grade schoolroom. Even at the very beginning of the year, some of them can read; some can write their names legibly, and possibly a few other words; some can count to ten; some can count well beyond that proud childish limit. On the other hand, some recognize nothing printed; some can produce nothing legible with crayon or pencil; some cannot count beyond two or three. In general, as we have seen, 20 per cent of school entrants will be slow mentally; another 20 per cent will be accelerated mentally; 60 per cent will cluster around the average for their chronological ages. The slow children will be the ones most disappointing in language ability upon school entrance; they will continue to be the least promising, also, in the ensuing school experience. Retarded children will have at any given time a lower mental age than chronological, and since satisfactory progression through the school depends rather upon the former, it follows that those with depressed mental ages must make a consistently poor showing in the classroom.

You will observe that some children talk much more than others do in the schoolroom environment. They have developed ready speech; they have been encouraged to participate at their level in the general conversation in the home, and now find much of their security and feeling of status in their vocal readiness and linguistic skill. At the other extreme are those children, often though not necessarily duller-witted, who either because of speech handicaps or lack of experiential backgrounds, or absence of early family stimulation, or indeed because of an inward-going rather than an outward-going personality, talk little beyond what is the bare essential to maintain themselves in the group. "Talking out" is extremely likely to appear among first-grade children of the former type of ready linguists, and primary teachers are often annoyed a good deal by it. They need to realize, while of course training such children in habits of politeness and control, that spontaneous vocalization is one of the principal ways in which preschool children develop the rudimentary patterns of language, and that if they continue to manifest this tendency after they cross the threshold of the school, they are only following through a logical developmental process.

Throughout the elementary-school period, and beyond, there is a strong tendency for girls to be superior to boys in the use of language. This, with occasional individual exceptions, appears to be an almost universal phenomenon. The reason for this sex difference is not easy to explain. It is possible that girls communicate through spoken language somewhat more than boys, who express themselves in many supplementary motor ways, or that girls have more careful linguistic tutelage at home under the influence of their mothers than do boys, or that conventions and mores tend to restrict somewhat more the language freedom of girls than they do that of boys, thus favoring in the latter the development of unconventional speech, impure speech, and barbarously ungrammatical speech. Or, of course, it may be possible that, phylogenetically, girls have inherited an ease and facility in oral expression that is wanting in the less-inhibited males whose racial contribution through the ages has been rather through big muscles than small muscles. Any or all of these factors together may account for the greater linguistic facility of girls. Whatever the explanation, the difference is usually apparent, not only in oral but in written language as well. You will not be surprised, therefore, to find boys at any level of the school scene less precise and careful in their language expression, less grammatically

conscious, and in general less at ease in oral reactions arising out of social situations.

LANGUAGE STATUS OF CHILDREN AT SCHOOL ENTRANCE

Notwithstanding these individual differences and discrepancies in language mastery and facility, there are certain minimum standards that first-grade teachers have some right to expect in the language and speech achievements of children at the time of school entrance. These should include the following:

1. Some ready familiarity with the language of number, including not only ability to recognize but also ability to use simple units. Counting at least up to ten and perceptual recognition of small units such as two blocks, three apples, etc., should be easy for the child.
2. Genesis of ability to compare and contrast two or more contiguous groupings of units, as, for example, "two dogs in this picture" and "four children in that one."
3. Absorbing interest in and language appraisal of pictures, simple scenes and events, manipulative materials, and the like.
4. Liking for simple games and voluble and easy talk about them as they are being played.
5. Memorization of a number of rhymes, games, Mother Goose tales, etc., and interest in rehearsing them or in talking about them.
6. Recognition of the commonest colors, ability to name them, select crayons appropriately, and talk about them interestedly.
7. Liking for scribbling, drawing, sketching, etc., and fascination in producing various types of these expressive arts at the six-year level.
8. Delight with mimicry and pantomime, and eagerness in dramatizing simple and appealing tales.
9. Recognition of such words as "left" and "right," "up" and "down," "in" and "out," "tall" and "short," "big" and "little," etc.
10. Ability to write or to print one's first name recognizably.
11. Ability to describe interesting things seen or happenings experienced in the home or the neighborhood.
12. Repetition, often *ad nauseam,* of fragments of language, appealing new words, jingles and other linguistic memories that cling intriguingly.

It is extremely unfortunate that for many children the years previous to school entrance are, from the standpoint of language acquisition, lost years. As we have said, the lack of stimulation to language adventurings in their homes retards the growth of language in too many children. It is unfortunately true today, as it was at the time when G. Stanley Hall made his famous inquiry into the content of children's minds on entering school, back in 1883, that "there is next to nothing of pedagogic value, the knowledge of which it is safe to assume at the outset of school life." In an age wherein there is available such a multiplicity of splendid books for preschool children and in which there has developed through the radio and the screen, the press and the home magazine and the family car so much of conversational value and family interest, it is regrettable indeed that not all children have profited perceptually and linguistically from the manifold opportunities. Fortunately, many young children have profited immensely from exposure to these stimulating agents in the experiential environment of home.

SOME CHARACTERISTICS OF CHILDREN'S LANGUAGE

1. The Primary Child's Language Is Concrete

In the order of language development, the early interpretation of surrounding phenomena is on the sense-perceptual level. The predominance of nouns in the spontaneous vocabulary of the younger child has often been noted by investigators. The earlier years of life are largely concerned with *house* and *table* and *chair* and *floor;* with *bottle* and *spoon* and *plate;* with *bread* and *milk* and *orange* and *apple;* with *boy* and *girl* and *man* and *woman* and *child;* with *street* and *store* and *automobile* and *bus;* with *policeman* and *milkman* and *cobbler.* Obviously, awareness of the meaning of these words and ability to recognize and to use them in conversation or in monologue develop earliest in the child's repertory of linguistic skills. More than 50 per cent of the words used at two years of age are nouns. Pronouns do not make their appearance during the first two years. Abstract nouns trail far behind concrete ones. Abstractions require a vast deal of specific experience with particular situations from which generalized meanings can be drawn. Hence, for such words as "truth," "patriotism," "honor," and the like, first-graders have no adequate interpretative background. Their lives and their language proceed on a concrete, particularized, and tan-

gible level of daily experience through eyes, ears, and other sensory avenues.

Even in their interpretation of the concrete objects and experiences that impinge incessantly upon their senses, primary children are limited, as may be seen by the definitions they commonly give for familiar objects. A *chair,* for example, is "to sit on"; a *table* is "to eat on"; a *mama* is "to love one"; a *book* is "to read"; a *needle* is "to sew"; etc. Earliest interpretations of perceived things are made in terms of the use to which they can be put, rather than in terms of structure or analyzed component. This, it must be admitted, is a tendency common likewise among many adults who, when asked a definition of something, will respond by telling the purpose the object is used for. Average run-of-the-mine people will define a chair as "something to sit on" more often than as "an article of furniture, usually with four legs and a seat." One should not be surprised, then, to find children showing this same tendency.

2. It Is Egocentric

In an interesting and painstaking study by Smith,[2] a record was made of every word spoken by preschool children up to six years of age. In the course of 124 hours of observation, the word found to be most commonly used was "I," which had a frequency of 2543 times. "You" had a frequency of only 955. "Is" and "it" had frequencies respectively of 1611 and 1041. These four words headed the entire list of frequencies. The egocentrism of the speech of young children is indicated by the repetitive occurrence of "I." Correlates like "baby," "me," "Bobby," etc., in such expressions as "Me want," "baby go?" "Bobby take?" etc., occur in great profusion, of course, in the earlier speech of young two- and three-year-old linguists in the solitary stage of their social-language evolution.

One should remember, however, that records made of children's words are usually taken down during social play, in which each participating child is obviously engaged in strenuous effort to maintain himself, or to clarify his position or momentary status, in contradistinction to the simultaneous status of the other participants; hence the repetitive use of "I" tends rather to identify spatial position or emotionalized opinion than to demonstrate egocentrism.

[2] M. E. Smith, "An investigation of the development of the sentence and the extent of vocabulary in young children," *Iowa studies in child welfare,* vol. 3, no. 5 (1926).

Urbrock, in an ingenious study [3] of a child's vocabulary, in which a girl of five dictated into an Ediphone an account of her daily experiences over a six-week period, found the frequency of "I" to be only 564, while the frequency of "and" rose to 2681. Was this five-year-old "conjunctive-centric," [4] in the sense that the children in Smith's investigation were ego-centric? The explanation may rather be that the girl was simply adding experience and impression after experience and impression, connecting them in the easy way of stringing them along between conjunctions. The author has listened to a good many set addresses by well-educated adults who similarly strung along dozens of statements that should have been broken into separate sentences, so that within a half-hour's talk perhaps no more than a dozen or so specific sentences could be definitely identified.

The truth of the matter probably is that the young child at school entrance is neither entirely egocentric nor "conjunctive-centric." He is both. The world of experience in which he passes every fascinating waking hour is very close to him, and he is striving to make order out of it. Meanings are the relationships this world at his fingertips has for him; outside of himself, it means little or nothing. To the degree that he can take it in, comprehend it, or bend it to his will and purposes, it becomes cognizable to him. Of course he is egocentric, to the extent at least that it is through the straining and screening activity of his mind that he is able to arrive at some workable comprehension of what James describes to be to the newborn a "great, booming buzzing confusion." In this sense, we are all egocentric.

The tendency to use connective words in conversation and in rehearsing experiences, rather than to combine each separate unit of experience into delimiting and defining sentences, is also readily understandable in the primary child. When he talks, he must pour out his mental content. There is neither time nor inclination to put periods in and start over again. Life and experience are a totality, and as a totality they must be recorded and rehearsed. Recounting events and experiences is a waterfall of language, and as such it foams down irresistibly and inexhaustively. If you will watch this tendency in the enthusiastic speech of some youngster who has recently been to the circus or the zoo, or who has witnessed a

[3] R. S. Urbrock, "Words most frequently used by a five-year-old girl," *Journal of educational psychology*, 27 (1936), 155 ff.

[4] A term coined apparently by Morgan. *Child psychology, op. cit.*, p. 320.

breath-taking event, you will realize that it increases in direct ratio to the enthusiasm the experience aroused. Do not be discouraged, then, when you find a primary child, whom you are trying to drill in the art of the "three-sentence story," launching forth into a prolonged one-sentence one without delaying the surging of language that cascades into expression.

3. It Often Bears Little Relationship to Book and Teacher Language

One of the reasons why teachers often find it difficult to encourage free and easy linguistic expression in young children is because the latter have had too little experience upon which to base language, either oral or written. Children whose backgrounds of language experience are meager usually have poor vocabularies. Only as they have experience with objects and situations, with relationships and activities and forces, can they possibly achieve a working vocabulary. If a child's contacts have been limited for the first five or six years of life to an environment wanting in stimulation of imagination, fancy, activity, play and motor activities *ad lib.*, it is natural that his oral command of words, and indeed his comprehension of words, will be disappointing.

Many of the books still in use in some of our schools are couched in language utterly beyond the capacity of the children in whose hands they are placed. Teachers, too, are past masters in the use of vocabularies that are "professional" rather than practical and understandable. It is distressing to note the helplessness of children when faced with words and phrases beyond their powers to grasp. It is not improbable that much of the boredom children at times feel during the school hours is an expression of their inability to comprehend the language of book, or of teacher, or of both. It is likely, too, that a part at least of their daily fatigue is due to the efforts they put forth in trying to wrest meanings from language that is unclear or baffling to them. Preprimers, primers, and primary readers are far more satisfactory from this standpoint than are books used in the grades beyond. Writers and publishers of the former have made much more consistent and intelligent use of research in children's vocabularies than have those of the latter.

Of the many studies that have been made in the field of children's vocabulary, we shall refer here to two that have been of particular value to those who write for children and to those who

teach. The *Thorndike Word Book* is perhaps best known of all such studies.[5] In this investigation an exhaustive listing was made of the different words used in newspapers, letters, textbooks, classic English literature, children's literature, and the Bible. Altogether, some 200 different sources were sampled by Thorndike and his assistants in order to arrive at a representative cross section of the English language as it is actually used in written communication. A count was then made of the number of times each word was used. The first 20,000 words were then given each a relative frequency-of-use rating. In the *Thorndike Word Book* these words with their ratings are reproduced. Extensive use has been made of this piece of research ever since it was published in 1932. By reference to it, a writer or a teacher may learn immediately whether a doubtful word is among those recognizable by children of the age under consideration.

The other significant study in the field of children's vocabulary was made by the Child Study Committee of the International Kindergarten Union.[6] The method employed by this group was to list all the different words actually used by children at the kindergarten level. A total of 489,555 running words emerged. These were then classified into the number of different words comprising them, the count showing that these children made use of 7186 individual words. In a further analysis, the committee counted the words that appeared seven or more times in the original listing. Of these, there were found to be 2596, and these may be taken with some confidence as representing the basal working vocabulary of children at first-grade entrance.

One must remember, of course, that word lists of this sort are compiled from the observation of unselected children, usually in a play setting. If 2500 to 3000 words are used repeatedly, it is to be inferred that the figure represents an average in usage. Those children who are duller will use fewer words than the average; those who are brighter will use more. Most studies report a wide range in this regard, some children using from two to twelve times as many different words as some others of the same age-group.

Growth, by two-year periods, in average vocabulary may be illustrated in the following tabulation:

[5] E. L. Thorndike, *The teacher's word book* (New York: Teachers College, Columbia University, 1932).

[6] "A study of the vocabulary of children before entering the first grade," International Kindergarten Union (Baltimore: Williams and Wilkins, 1928).

Age in Years	*Average No. Words Known*
2	300
4	1500
6	2500
8	3500
10	5500
12	7500
14	9500

These averages, given in round numbers, show that between the ages of two and four, there is a vocabulary gain of 500 per cent, and that in each subsequent biennium up to the completion of the elementary-school years there is a flat addition of between 1000 and 2000 words, yielding a biennial gain throughout the period of something like 150 per cent. Most phenomenal of all is the vocabulary growth during the first six years, comprising some 2500 words on the average. This number has multiplied itself by three by the time the child is twelve years old and is ready for junior high school.

4. It Tends to Externalize Itself

Everybody has smiled at the running monologue four- and five-year-old children employ constantly as an *obbligato* to their play. The presence of other children does not deter each from talking volubly and animatedly by himself; nor does the propinquity of others necessarily inspire to and fro chatting. Each individual, and this is notably true in the preschool period, appears to be so completely committed to the activity of the moment that he can spare little effort to maintain the dubious thread of connected dialogue. Much of this "out loudness" clarifies the child's perceptual and ideational processes. The running comments that accompany his intake of stimuli, and his inner sorting and classifying of experience, keep his attention sharply focused and his associative processes prodded into lively action.

Since, however, a young child's ability to put into language all the ideas and interpretations that he experiences is definitely limited, he often makes use of other media of expression than the spoken word. It is easy, when one has a strong inner feeling about,

for example, a little calf that is running about, kicking up his heels and ignoring his mother's admonishing moos, to depict the whole scene with pencil or crayon and convey all the felt drama of the situation. It is easy, too, when one has listened to a record playing "The Dance of the Flowers," to paint or draw brightly colored files of kneeling, dancing, whirling blossoms across a wide sheet of paper. Or, lacking crayon and sketching facilities, and perhaps too impatient even to take the time to reproduce such scenes through any graphic medium, a child may instead transform himself into the cavorting calf or into a dancing blossom and express his interpretation of the drama in the very poetry of motion. We shall later, in Chapter 9, pay considerable attention to aesthetic development in children. At this point, our aim is merely to refer to this form of expression as one of the means by which language tends to externalize itself. For language, it must be understood, includes not only vocal reaction, but signs, gestures, facial grimaces, and manual and physical and dramatic expression as well. It extends all the way from speech, verse, music, and drama to crayon and paint and clay and sand.

Five-year-old Beth (I.Q. 108), playing in a sandpile in her back yard on a sunny afternoon, was recorded by an unseen observer in the following bit of monologue. The only properties at hand, in addition to the sand, were a few twigs of lilac leaves, some small sticks, pieces of broken shingles, and half a broom handle. A segment of Beth's monologue follows:

Make a house for Beth—nice big house over here—(4 pieces of shingle roofed over with five other pieces). Live in house with mommy and daddy—Need a little-bitty house for Sparkie—Put it here side of my house—(two pieces of shingle slanting against each other).—Come Sparkie! Sparkie! Come an' go in your house! (Dog not impressed, but stands patiently by.) Nice house, Sparkie, right side of my house.—Need some trees—big trees. (Selecting and sticking several lilac sprigs in the sand around both houses) Sparkie, you play under this tree, an' Beth will play under this one. —Ned can have that one for him—Want a nice road to the house—Make a good wide one, big enough for the autom'bile, right up to the door. (Scooping a lane in the sand). Oh, Sparkie, your house is right in the way!—Move it over here (Changing the dog's house.) —That's nice now; we can ride up to the door of my house.—Sparkie can come running from his house when he wants a ride.—Some frowers over here. (More lilac sprigs stuck in the sand back of the house). Pritty frowers, smell so good.—(Spying the broom

handle and perceiving its possibilities). O-h-h-h goody! A Frag-pole!—Have a big frag for my house. (Pushing the rod into some sand and working more sand around its base.) Frag might brow down—Put it up hard so 't will stay—(Balancing a sprig of leaves on top of the stick.) Put up the frag, high and nice—Make a see-saw for Beth and Ned to ride on. (Placing a long stick at right angles over a shorter one, and moving it up and down with both hands)—Isn't that nice, Sparkie? A see-saw!—Oh, Sparkie, we for-got about a gawage for daddy's autom'bile!—Make it here, side of the road. (More pieces of shingle stuck in sand and flat-roofed with other pieces.)—Make the road run right into g'wage. (Scoop-ing out a driveway from the main road)—O-o-h, daddy—Ned! Come an' see! (Running up to father and Ned, who just then emerged through the door, and tugging them toward the construc-tion scene)—Lookie, lookie! Beth's house an' Sparkie's house an' a g'wage an' trees an' a frag!

5. It is Naïve, Uncritical, and Abounds in Syncretism

The child starts out from zero in word comprehension and achieves within the brief space of six years an acquaintance with some 2500 different words. It is, therefore, not surprising that the meanings of some of them should be rather obscure, and that as he continues during the primary grades to be exposed to more and more of them, and to growing numbers of difficult ones, there should continue to be more or less misinterpretation and naïveté in his understanding of words. Moreover, since words are rarely met in isolation, but occur typically in phrases and sentences, a new diffi-culty arises when the child attempts to weave their supposed mean-ings into the fabric of other words. Frequently, half-known, half-unknown words fall into a peculiar and pleasing rhythmic pattern; and frequently they acquire transpositional meaning when juxta-posed, thus adding to the uncertainty of interpretation.

It must be understood also that young linguists are not highly critical in their perception of meanings of words and phrases, being usually quite content with parrotlike imitations, illogical and im-possible ascription of meanings, and a generally *laissez faire* attitude of mind so far as rational or critical evaluation of first impressions is concerned. For all these and other reasons, the word and phrase interpretation of children is frequently amusing, if not indeed some-times startling. There are probably few adults who have not had the experience of sudden reinterpretation, in a swift flash of insight, of some phrase or maxim or line learned naïvely in childhood with

utter disregard of its actual meaning, which only now—years afterward—clarifies itself.

Metrical language in particular is subject to this interpretative error in children's ears and minds. One youthful religionist, for example, was accustomed to sing lustily in his Sunday school class about "wanting to go there," but if you want to get there "don't chew" tobacco. Another interpreted "the consecrated cross I'd bear" as "the consecrated cross-eyed bear," and appeared to be unafraid of his fearsome burden. Another substituted for "far out on the desolate billow" the words "far out on the desperate pillow." Another sang of "We three kings of Ory and Tar"; another, "Ho, Santa, Ho, Santa, the little children sang" for "Hosanna, Hosanna, etc." A girl supposed the old oaken bucket to be the "old open bucket," and declaimed it accordingly until at twelve years of age she was corrected by a teacher. A ten-year-old boy read the stirring lines, "Scots, wha hae' wi' Wallace bled!" as though the meaning were, "Scots, what has Will Wallace bled?" the answer to the poetic interrogation being obviously that Will Wallace had bled his blood for Scotland! To another boy, the Charge of the Light Brigade referred to the invincible surge of bright light that accompanied the dash of the six hundred. To still another, the "bright jewels of the mine" in the line, "What sought they thus afar—bright jewels of the mine?" referred back to the Pilgrims themselves, who must have been bright like jewels.

THE LANGUAGE OF THE YARD OFTEN NEGATES THE LANGUAGE OF THE SCHOOLROOM

In a certain fifth-grade room a language game preceded recess. It was a game the children very much liked; they had played it often before. One child was sent from the room, and while he was away the others chose Helen to be "it." Re-entering, the first child asked the children: "Is it Tom?" They replied in good form, "No, it is not he!" "Is it Mary?" "No, it is not she!" "Is it Peter?" "No, it is not he!" "Is it Alice?" "No, it is not she!" When at length the query came, "Is it Helen?" they almost shouted, "Yes, it is she!" Tension built up steadily until the right child was named, then it was released, to be again built up when the next child went out and another was chosen to be "it." Ten minutes afterward, however, in through the windows that opened upon the school playground came repeatedly such shouted declarations and protesta-

tions as: "'T ain't him; it's her!" "It's him that's it, not her!" "I am *not* 'it'! It's him!" "No, it ain't him! It's still her! Look out!" And all this substitution of extra-school language for intra-school language occurred as naïvely and unconsciously as though two utterly different media were being used in the two situations. This divorce of speech in the raw from the language of drill and convention, to which children are introduced in school, is unfortunate from the standpoint of economy of learning. It is unfortunate also for the censorious ears of listening teachers. The children, however—at least probably most of them—seem eventually to make the tie-up between the two, so that little by little their language form becomes more grammatical and acceptable to polite society.

The story has often been told of a boy who was the despair of his teacher in this matter of good speech. One day, when she was particularly annoyed at his ungrammatical style, the climax was capped when the boy's animated narrative in oral composition produced this gem: "He wouldn't have went, anyway, if I had been home; I'd have went myself." The offender was forthwith advised what the correct form should have been, and, to insure that her teaching should this time, at least, yield recognizable fruit, the teacher kept him after school to consummate a practical bit of repentance. While the others were trooping home, this hapless eleven-year-old was tarrying behind to write one hundred times the approved form: *I have gone. I have gone. I have gone.* When the ordeal was ended, the teacher being at the moment talking with another teacher in the hall, the lad carried his manuscript to her desk in the front of the room and deposited it, taking time only to write this explanatory line: "Miss B——, I have finished my writing and I have went home." The author is inclined to dismiss the explanation sometimes offered for this boyish addendum that it was a bit of maliciousness, penned with tongue in cheek; it appears far more likely that the subscriber was completely naïve, and the idea did not occur to him that the "I have gone" of the teacher-school language was supposed to replace the familiar and practiced crudity of the vernacular. In any case, the incident illustrates perfectly the wide discrepancies between the two.

Gang and yard practice obviously tend to foster ungrammatical rather than grammatical speech. Children's play life is so emotionally satisfying and enthralling that small encouragement is given to reflective speech processes. Rules and approved speech forms may be known, but they are not strikingly in evidence in the rough-and-

tumble language of elementary-school children. Persisting errors are therefore to be expected at this level of linguistic evolution. It is only with increasing maturation, social consciousness, and acceptance of the conventional that the old errors slowly yield, at least to any great degree. It is the common experience of all of us that relatively few adults ever do achieve grammatically acceptable speech.

Added to this slowness of adoption of good language forms by children is another condition that retards their achievement of easy and pleasing speech. This is the tendency—by no means limited to juveniles—to articulatory and enunciatory laziness. Vigorous speech requires considerable muscular effort in the speech apparatus, and unless that effort is exerted constantly one's speech is likely to become indistinct and inarticulate. In one investigation [7] it was found that 44 per cent of boys at the age of school entrance (five and a half) and 27 per cent of girls had faulty articulation. This defect, while becoming less evident by the fourth grade (nine and a half years) was still present in thirteen per cent of the boys and in five per cent of the girls. Prominent among the specific errors in the speech of these children were substitutions; for example, of *d* for *th*, *w* for *r*, and *t* or *th* for *s*. Most of these reflect a prolonged use of baby talk, with its sluggish and indifferent formation of certain initial sounds, many of which require considerable muscular explosiveness if they are to be rendered with good articulation. In passing, it is interesting to note that, like other investigations, the one cited indicated that girls are at each stage superior to boys in articulation, especially so at the early level, diminishingly so by the end of the elementary-school period. It is perhaps idle to conjecture regarding the explanation of this, although it is likely, as we have seen, that girls are held by their mothers to better speech standards than are boys.

MONGREL SPEECH: SLANGUAGE

From the earliest school years, while the speech muscles are peculiarly supple and plastic, children exhibit lively interest in using them in fantastic ways to produce a mongrel language. This medium of communication is fashioned from a few foreign words or phrases, notably French or Latin, upon which a child happens

[7] E. A. Davis, *The development of linguistic skill, etc.* (Minneapolis: University of Minnesota Press, 1937).

to come, from the addition of monotonously repeated prefixes or suffixes to conventional words, from Latinizing, Gallicizing, or Russianizing words in the everyday vernacular, from setting words to jingles or rhythmical repetition, and from the appropriation of slang words, expressions, and exclamations. The example is set by the comics, the broadcasters, the moving pictures, the advertisers, and by original youngsters and oldsters with whom one associates. The result is a brand of oral communication that is as delicious under the tongue of the juvenile imitator as it often is startling to the ears of the older listeners.

Examples of this sort of language are innumerable. "How-gly do-gly you-gly do-gly?" "Come-ski and play-ski with me-ski, Johnnie-ski!" "Do you savvy?" "Sabby?" "Can you parlee-vou?" "*Brother,* that was a wow—and right on the kisser!" "Old Butt-in-ski!" "M-i-crooked letter- crooked letter- i- crooked letter- crooked letter-i-p-p-i!" "The pencil sharpener is on the blink!" "You're nutty!" "You're screwy!" "Tom's got four bits—half a buck" "Shut your peepers!" "Shut your hash-trap!" "Ha! Right on the nose!" "You blame(d) fool!" "Mosey!" These forms exist side by side with conventional ones, and almost at times eclipse them in the juvenile group. Most of them are pithy, highly expressive, and extremely popular.

SOME CAUSES OF SPEECH RETARDATION

1. Organic Defects

Bright, early-talking children sometimes have a vocabulary of from one to three recognizable words before they are twelve months old. Ordinarily, however, children are halfway through their second year before they have a minimal working vocabulary of a score or so of words. From then onward, words employed multiply rapidly, almost three hundred appearing in the pattern of two-year-olds. These figures apply, of course, only to those children who begin to talk at the usual time, and who progress at the usual rate. There are in any juvenile community considerable numbers of children who have speech defects, impediments, or limitations of one sort or another, and who are in consequence linguistically retarded below expectancy for their age or grade.

Probably least common among the causes of speech abnormalities in children are structural defects in the organs producing speech. These defects include a tight, constricted larynx, imperfect vocal

cords, spastic paralysis, low palate, cloven palate, too thick tongue, or a tongue too broad. Associated secondary defects may also include an obstructed naso-pharynx, sinusitis, abnormality in the phonating chambers, narrow chest and deficient lung capacity, and impaired hearing leading to imperfect auditory speech patterns. Any one of these abnormalities may interfere with normal speech and language development, to a slight or to a marked degree, depending upon the severity of the defect. The following two brief case histories may be cited as examples of two quite different types of organic defects in the speech apparatus.

Arthur was born with a malformed throat in which the soft palate was absent altogether. Much of the normally free space in his pharynx was occupied by a broad, heavy tongue rooted too far back. The author did not see Arthur, and no previous attention was given to his speech difficulties, until he was six years of age and had entered school. It is quite possible that if his parents had cared to or had been able to secure competent surgical attention to the condition, considerable improvement anatomically and physiologically might have been achieved. Lacking such aid, Arthur found reading, pronunciation, phonation and articulation very trying experiences. Fortunately, he had five brothers and sisters who never made sport of his grotesque facial contortions whenever he attempted to read or speak, and they saw to it that none of the other children plagued him about his deficiency. Arthur apparently was spared the poignant misery he might otherwise have experienced at the hands of other children through mimicry and derision. Unspoiled, unfearful of himself, he accepted his impediment philosophically and strove to read, talk and otherwise comport himself like everybody else. Despite his yeoman efforts over a six-year period, however, Arthur never became—and obviously never could become—an easy or comfortable linguist. He frowned, threw out his lips, narrowed his eyes upon the printed page or upon the face of an interlocutor, and made himself understood, although about his speech there was a thickness and a monotony that would not be overcome.

Jean was a spastic, with all voluntary muscles explosive and out of control. When she was twelve years old, having been until that time in a small school for feeble-minded children, she was brought to the author for study and treatment. One of the first electrifying discoveries made was that not only was Jean not feeble-minded, but that she had a Stanford I.Q. of about 109, which located her in the upper ranks of average people. Not having been able to adjust in the first grade, and obviously out of place among normally

active children, she had been withdrawn and placed with feeble-minded children in a private school. At twelve, she could talk, but the contortions of body and the grimaces and gyrations of face and head were so depleting and discouraging to her that she wished to talk little. She could walk, although gracelessly; manually, she was explosively active and uncontrolled. After six years of careful training, and with constant tutoring by a private tutor, Jean has made very heartening progress, both in general muscular coordination and in speech development. At the start, she was painfully aware of her awkwardness and of the extremely hard work she made of trying to talk. Spasmodic, almost choreiform muscular contractions of chest, shoulders, neck, head, and face made speech trying to her and heart-rending to her hearers. Today her improved control and motor coordinations, while not such as to render her inconspicuous in a social group, have so greatly encouraged her and have reduced so sharply the nervous pressure under which she previously labored whenever she undertook to participate physically in any activity, that she is confidently looking forward to college and to undergoing training which will fit her to work with other spastics who, like herself, need great sympathy, great patience and great understanding. Jean's case is obviously not one of structural defects but of functional defect. The paralysis which her motor nerve centers sustained at birth has made it difficult for her to win control over the speech muscles with which latter there is essentially nothing abnormal.

2. Inadequate Speech Patterns.

Mastery of speech and language is an imitative art, each child requiring examples or patterns of speech upon which to model his own vocal efforts. Absence of speech patterns for this purpose may be due either to inability of the child to hear or to lack of opportunity to imitate such models.

Total deafness is relatively rare among children. Where it is found, it is ordinarily associated with heredity or with damage done to the middle ear by the respiratory diseases of childhood, notably measles and scarlet fever. Absence of all auditory pattern of speech for such unfortunate children makes learning to talk an exceedingly difficult task. Only through constant and efficient tutoring may a totally deaf child achieve a spoken language, and, even under the best conditions, the quality of his speech will be poor. Compelled to reproduce as best he can sounds whose only cues are vouchsafed by visual impressions of the lips and tongue of his tutor, or by tactual suggestions gleaned from feeling the motion of his

larynx and voice muscles, the deaf learner can only approximate the pattern. His speech sounds monotonous and tinny, and lacks good nasal phonation.

Far more common than totally deaf are partially deaf children, the acuity of whose ears has been reduced by disease or accident. The speech patterns they hear are only partially perceived, and hence mastery of facile speech becomes for them much more of a task than it is for normally hearing children. An unfortunate aspect of the situation is that the low hearing level of such children is not always recognized, even by their own parents. Considerable deterioration in hearing may have taken place, following a siege with scarlet fever, for example, and no one be the wiser. Even the victim himself, if he is still under four or five years of age, may be unaware of his deficiency. Mistaking his slow reactions and his uncertainty of speech for heedlessness, obliquity, or even for a slowly emerging stupidity, his elders and others who associate with him may create for such a child an acute psychological condition. For it must be apparent that when a child finds himself chided and scolded by his parents and avoided or laughed at by his mates, and all for reasons that he cannot comprehend, he will tend toward introversion and to adjudge himself to be indeed, as others imply, inferior. Once his deficiency has been discovered—and it should be promptly, of course—great pains must be taken to surround him with every possible aid to enable him to make the best possible use of what auditory powers he may have left.

Often normally hearing children do not have enough opportunity to come into contact with proper speech patterns. This is the case with those children whose parents encourage them in prolonged and elaborate baby talk, and actually participate with them continually in it. Baby talk is delightful to the ears of most parents, but it is a grave mistake for them to regard it as other than a very transitory developmental stage in the growth of speech, and to aid and abet a child in its continuance. Later speech abnormalities, as well as personality problems of adjustment, may be the unfortunate lot of such a child.

In passing, still other factors interfering with normal and adequate speech patterns should be pointed out. An occasional child is taught to speak one language at home and another at school. Bilingualism in the case of young children cannot but impoverish their status in both. Mastery of a single vernacular is sufficient ordeal for any child; when he must divide his efforts between two,

confusion and mediocrity are almost inevitable. Most teachers who have children from foreign-speaking homes are impressed with the slow progress they usually make in English speech.

A child who plays much by himself, or with an imaginary mate, may also be retarded in his speech through absence of proper patterns to imitate. So also may twins who grow up largely in each other's company, and who develop a jargon of their own that is mutually intelligible and satisfying but that is an insecure basis upon which to build conventional language forms. So, finally, a child who possesses a solitary nature, and who avoids purposefully mutual intercourse with other children, may lack proper stimulus for language, unless, as sometimes happens, he compensates by being much in the company of older people; or by developing a fondness for reading, in which case his speech may either be considerably enriched over and above that of his age level, or else it may be "bookish" and afford a dubious basis for that easy and free oral intimacy that helps a child to grow in humanness and sociability.

STUTTERING IN CHILDREN

About one per cent of sixth-grade children stutter, according to the findings of Wallin. In every grade through the elementary school and the junior high school, he found a frequency of stutterers in excess of one half of 1 per cent. While this is not high—less than one child in every 100—it is high enough to indicate that a real problem exists. Other investigators would place the percentage of stuttering children considerably higher. All are agreed that it is the most serious, if not the most common, type of speech defect. In a large city school having an enrollment of 1000 children, there will be found ten or more stutterers, each of them not only a difficult problem in his own right, but providing an unfortunate psychological hazard for all the rest of the children.

Stuttering is recognizable by the more or less spasmodic repetition of initial consonant sounds, syllables, or even of short words. Commonest difficulties are with initial sounds beginning with the consonants *b, d, k, m, p, t,* and *w.* The stutterer will purse his lips and place his tongue properly for the sound he proposes to make, but when he innervates the speech muscles to produce the sound, they "jam" and cause the sound to be repeated explosively for half a dozen or more times before they will let up and permit utterance of the following letters or syllables. One thinks of the analogy of an

electric starter that does not disengage instantly when the spark takes over. The situation is very trying and embarrassing to the performer; to his juvenile auditors it may be a source of merriment and lead to much mimicking. One boy—named Myron—had the greatest difficulty in pronouncing initial *m* sounds. Since his own name began with *M,* the other children took the keenest delight in bantering him about his difficulty, and never thought of addressing him or calling his name on the playground in any other way than with a staccato-like "M-mm-m-m-m-m-m-yron!" The effect upon the boy's personality adjustment may be imagined.

Although stuttering is ordinarily overcome without too great difficulty, there are in the United States somewhere in the neighborhood of a quarter of a million adult stutterers, in most of whom (certainly 75 per cent) the defect made its appearance before eight years of age and has never been conquered. The loss of status and self-esteem experienced by these people is distressingly great, for most of them are extremely self-conscious and embarrassed in the social group, preferring to remain silent rather than to subject themselves to the mental torture of conversation. The abnormality has economic reverberations also, since a good many vocations are obviously distasteful or actually closed to stutterers.

There have been various conjectures as to the etiology of stuttering. It is rarely if ever due to any organic defects of tongue, pharynx, or speech organs. It ranks therefore as a functional disorder rather than as a structural one. Through some sort of early conditioning, the victim of stuttering has developed a supercharged emotional attitude toward certain speech sounds. Basally there is fear in the stutterer. The fear may be of others, or at least of one's ability to impress them favorably. Interestingly enough, when the stutterer is safely moored within the familiar surroundings of home and family, his abnormality of speech is decidedly less striking than when he is in unfamiliar surroundings, or finds himself in a strange or hostile group. The fear may be of making the very error he always makes when he attempts a word containing his particular demon; and make it he does, over and over again, despite his best efforts to jump smoothly over it. The chances are that he has been scolded or taken to task for his vocal gaucheries many times by his elders, and so has developed an abnormal consciousness of his difficulty and is thrown into inner turmoil whenever he speaks. The fear may therefore be fear of scolding, or of ridicule, or of the very panic that invariably recurs when he meets his Waterloo. Occasion-

ally, when his mind is taken away from his besetting difficulty and is focused sharply upon something else, he forgets himself and does not stutter. This occurs often in choral reading, in reciting in unison, and in singing.

Back of stuttering there is probably either an insecure personality or else a history of emotional stress in the environment. We do not know exactly what constitutional factors predispose to speech abnormalities, but it is likely that such factors exist and that when an individual endowed with them runs into difficult emotional situations he becomes hypertense, loses motor control, and begins to stutter. The existence of a constitutional predisposition is indicated by the fact that most children who are subjected to strains and stresses in their early home environment escape stuttering, while relatively few, subjected to identical emotional factors, adopt it.

It is quite likely that potential stutterers could be saved from abnormal speech if their early home and school training could be regulated in such a manner as to provide full self-confidence and security. Overpressure applied to them because of their alleged or actual slowness in learning; scolding, sarcasm, and diatribes over their heedlessness; overbudgeting of their days to allow time for music lessons and dancing lessons and piano practice and the like; emotional overstimulation through movies and radio; anxiety and uncertainty about family affairs; apprehension arising out of personal problems that find no sympathetic ears into which to be poured; friction and conflict and failure rooted in the school experience—these things may easily create an emotional situation that militates against motor control and organization in general, and coordination of the speech muscles in particular.

Special pains need to be taken by teachers not only to aid children who already stutter, but also to prevent the development of stuttering. In general, a smoothly running, orderly schoolroom promotes calmness and serenity in the pupils. Poise and control in the teacher engender, through the power of suggestion, poise and control in the children. Criticisms, domination and overcontrol, nagging and scolding, on the other hand, create tension, and whatever creates tension is a potential creator of stuttering. With those of her pupils who are already stutterers when they come to school the teacher needs to exercise the greatest patience, to provide them with private individual drill and help in overcoming their speech fears, and to encourage the other children to behave toward them exactly as they do toward everybody else. Nothing could be more

disastrous than for the teacher to manifest, or to allow the others to show, either impatience, exaggerated calm, eloquent indifference, or verbalized sympathy for a stutterer who is presently performing. What the latter needs is confidence and a feeling of status and security; these he cannot sense if the impression fastens itself upon him that he is entertaining his mates, or that he is being pitied by them, or that his handicap is being borne with polite patience on the part of all. Humiliation must be avoided at all cost.

PERTINENT QUESTIONS FOR DISCUSSION

1. Record the different words used by two or three children whom you overhear at play, preferably children not older than five years, and not yet going to school.
2. Do you have any evidence from your contacts with children in school that language is a rather good index of intelligence? Explain.
3. What differences in speech facility can you observe among various children in your room who come from divergent home backgrounds?
4. Are the girls in your room better linguists than the boys? Or are the boys superior? Are there striking exceptions either way?
5. Rank the individual children in your first-grade class on the twelve minimum expectations for first-graders given in the text. What is your general result?
6. Cite evidence to support the statement made in the text that the primary child's language is predominantly concrete. Do you find any contrary evidence?
7. Observe the frequency of the use of "and" in the conversation and speech of children. Compare adult practice.
8. Evaluate the books, reference books, etc., available to children in your grade from the standpoint of adaptability of their vocabulary to the needs and abilities of the age group.
9. Familiarize yourself with the *Thorndike Word Book* and use it to judge the vocabulary used by an author of some recent book for children that you have easily available.
10. Observe the efforts of a particular child to externalize his ideas through some medium of communication other than speech.
11. Collect from your observation of children, and from querying adults, additional instances of syncretism in the language of children.
12. Do you find any instances in which extra-school language

habits tend to undermine language habits cultivated by the school?

13. Observe a particular child in your room whose articulation is faulty. Devise and try out some practical correctional technique. Note the results.
14. Collect additional specimens of mongrel speech heard on your playground. What are some popular slang forms of the moment among them?
15. Do you now have, or have you in the past had, any children with anatomical defects of the speech organs that interfered with the production of oral language?
16. What experience have you had in teaching children whose hearing was deficient? What was the degree of deficiency, and how did it show up in their speech?
17. Do you have any primary children who still indulge in baby talk? Do you have any bilingual children?
18. Have you ever taught a stuttering child? What techniques and devices did you find helpful? What precautions did you endeavor to observe?

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CHAPTER 8

IMAGINATION AND MAKE-BELIEVE

Some Children To Identify in Your Room

A child who . . .

(1) dramatizes in his play many of his common daily experiences;
(2) tires soon of one kind of play and turns to another;
(3) in fancy transforms one object into another;
(4) is catapulted into mental activity by his keen imagination;
(5) recreates his world in fancy into a world as he desires it;
(6) is freed by fancy from his limitations;
(7) transforms everyday experience into thrill and excitement;
(8) likes games requiring much imagination; dislikes them;
(9) especially enjoys imaginary stories;
(10) is troubled by unpleasant dreams;
(11) is a confirmed daydreamer;
(12) cannot be relied upon to tell the truth; is meticulously truthful;
(13) possesses unusually keen imagery;
(14) is prosaic in outlook, and is irked by fanciful situations.

GENERAL ORIENTATION

Edgar Allan Poe would undoubtedly be regarded, by common consent, as one of the most imaginative of our American prose writers. His story, "The Pit and the Pendulum," is one of the most breath-taking of all his stirring tales. The setting is during the Spanish Inquisition. A man wakens, after many terrifying experiences at the hands of the inquisitionists, to find himself bound hand and foot and lying flat on his back in a dungeon. Lurid sulphurous light emanates from a pit near by, and as his eyes become accustomed to the pale glow he observes that a pendulum is swishing back and forth from the ceiling of the dungeon in an arc of a good thirty feet. As he watches the swinging pendulum, he discovers to his horror that its massive bulk tapers down to a razor edge at the bottom, and that with each swing across the dungeon it is being lowered as if by the hands of demons. In consternation mingled with despair he calculates that its pathway is straight over his heart and

that, after torturous hours of its slow descent, the razor edge will first graze and finally cut his body through. His bulging eyes note the huge rats scurrying about the dungeon, waiting to devour his body. Already they are consuming the food that lies near him and are snapping at his flesh.

Grotesque, bizarre, highly imaginative and impossible, one says! True, the tale is highly imaginative, but if you will stop to examine its component elements, you will find that there is nothing strange about it. A man bound hand and foot is not unheard of. A swinging pendulum suggests the prosaic part of everybody's daily life and experience; so does a razor; so does dim light. Dungeons are not uncommon; neither are rats. All Poe has done has been to put together the commonly observed facts and experiences of life into a new pattern, attaching a razor to a pendulum, cords to a man, and placing the events in a cave with rats and lurid light, and all so grippingly that he who reads it experiences almost as much horror as does the anguished victim waiting grimly for the inevitable end of his sufferings.

IMAGINATION MUST BE BASED ON PAST EXPERIENCE

Proceeding from Poe's imaginative tale, let us examine the world of make-believe, in which children commonly spend much of their young lives. Here is a boy dashing across the yard and down the street, emitting as he runs the characteristic "Choo-choo-choo" of a locomotive; he is a train. Here is a girl carrying her doll through a siege of measles, nursing it with care and devotion; she is mother and nurse in one. This boy all but stuns his hearers with tall tales in which he has, for example, just killed a bear, or captured single-handed a notorious robber, or tracked a bandit to his lair. That boy adopts all the professional mannerisms of a detective and goes sleuthing for adventure as a juvenile F.B.I. agent.

On almost any day, groups of youngsters may be observed engaged in wars and pitched battles in which youthful fortitude and valor reach a high note. In turn, tiring of one activity, they play house and they play school, scolding and punishing and teaching as they see adult actors doing these things. They are now policemen wielding their night sticks over the head of some cowering, laughing "prisoner" whom they have apprehended; now firemen carcening off with clatter and display to some "burning" building near at hand; now they are soldiers marching and drilling and bivouacking;

now postmen distributing mail; now physicians furrowing their brows over desperately "ill" patients with true professional finesse; now surgeons operating on dangerously wounded or injured men and women; now farmers plowing the land; now telephone operators enmeshed in headphones and wires; now signalmen wigwagging messages in code from a hill or an upper-floor window; now merchants and clerks selling their wares; now street vendors hawking their gadgets; now ragmen shouting their melodious calls; now jockeys urging forward their mounts.

In all of these, and in the myriads of other play activities of childhood, the young actors, like Poe, are scooping up fragments of experience here and there and building them helter-skelter into their expressive lives. The things they see adults doing around them and the things they hear or read about become the raw material out of which their imaginations build the fascinating adventure that daily life becomes for most juveniles. Fancy's magic wand readily transforms a broomstick into a prancing horse, a play tent into an Indian wigwam, a deserted shack into a hide-out for highwaymen and robbers, a barrel stave into a blunderbuss, a stick drawn across fence pickets into the rat-tat-tat of a machine gun, a club into either a tomahawk to scalp an enemy or else a sword with which to strike off the heads of daisies or grasses overhanging the sidewalk as one passes.

WHAT IMAGINATION DOES FOR THE CHILD

1. *It Stimulates Mental Activity*

Anyone who has observed a six months' old baby twisting and squirming and hitching and wriggling and vocalizing can easily understand how it is that this incessant physical activity, long before the child can walk about, develops his muscles and refines his coordinations, until the time comes when he is mature enough to romp about and to produce articulate speech. In much the same sense, the more or less perpetual play of fancy stimulates the mental development of the child. The world of bottles and mamas and play pens and bouncing balls, for the young child, and the world of airplanes and automobiles and play fields and bows and arrows, for the older child, fascinating as it is, would not be nearly so intriguing if imagination did not snatch the child aloft; and the development of his mental powers would be prosaic and humdrum indeed if fancy did

not impel him to improvise it all into a continuing symphony of experience.

Into the sky on his mounting kite he rides; across the hills and the valleys he projects himself; in the exploits of Defoe or Boone he plays a major part, conquering the desert islands and the frontier; through the looking-glass the girl steps with Alice; on the magic carpet the boy journeys at will to the land of his dreams; with Little Red Riding Hood, with Hansel and Gretel, with dwarfs and giants and ogres and trolls he identifies himself; with gypsies and Bedouins and buccaneers and pirates he romps over deserts and plains and seas; amid pounding surf and drifting sands and sailing ships he projects himself across distances that physically he will never compass; he dwells intermittently on the mountains, in some coral grove under the seas, and on the distant stars; he walks and talks with animals and with imaginary companions, with flowers and trees, and with God. He even personifies the very rocks and the inanimate objects about him. His imagination literally puts spurs to his evolving mental powers and rides them to the limit.

2. *It Creates the World As He Wants It*

Man has by his genius built the material world about him, but the child of man is rarely content with the handiwork of his elders. The world that men have constructed is prosaic, limited, not always inviting or intriguing. The child's fancy can and does run riot over it, accepting here, rejecting there, transforming somewhere else. Man's world is for men; the world the child creates is for children, or for children who are already men and conquerors in fancy. In such a child-centric world, rules are irksome or superfluous; order and decorum and considerateness of others are adult afterthoughts. To walk conventionally is one of the barnacles of maturity; to hop and swirl and gyrate, as children commonly do, is a perennial imperative of childhood, calculated to replace the slow and measured locomotion of stolid grownups. To smile and chat and laugh discreetly are conventionalized by adults; to shout and yell and guffaw is the juvenile's idea of oral communication.

The child desires a world of play, of unrestricted physical prowess, of great challenge, of make-believe, of whimsy, of Lilliputians and Brobdingnagians. He would transform the prosaic world of grownups into a poetic one of adventure, showmanship, romance, mystery, lugubriousness. The child's world is one of shouts and laughter, of magic and sleight-of-hand, of intense rivalry and emu-

lation, of sign language and jingle and alliteration, of riotous, dervishlike careening about, of touch and go, of ebbing grief and soon-dried tears, of red-hot loyalties and abiding camaraderie, of springing hopes and unquenchable confidence, of impatience with routine and the snail-like pace of progress, of wealth and preferment to be had for the asking, of pots of gold at the foot of every rainbow. Thus does the fancy of children create the world after the blueprints of juvenile predilection.

3. It Frees the Child from His Limitations.

The juvenile world of imagination presents the young actor on the stage of events as conqueror. This is a role quite in contrast to the mundane world of acquiescence and subordination in which children commonly find themselves. They are hedged about with restrictions and prohibitions; they are to be seen and not heard; they play a minor, even though it is often a central, role in the family drama; they are physically inferior, socially inept, and mentally inexperienced. They must obey their elders, follow a more or less strict regime and daily hygiene, sit long hours under teachers, run errands, mind smaller children, and in general occupy an insignificant place in the management and direction of affairs both at home and abroad.

Chafing at the restraining bonds that hold them to the daily round, children find through imagination an agreeable escape for their trammeled spirits. Though they cannot dominate actually, they can conquer in fancy. In the inner world of ideation and dynamism they can ride rough shod over their elders; can achieve flattering success in areas in which, actually, they do only mediocre work; can overcome frustration of their drives and goals; can escape from the intolerably irritating limitations of dependence on their parents; can rise triumphantly above slow legs, bungling muscles, gaucheries, failures, and shortcomings; and, in general, can experience vicariously all the satisfactions that are denied them in actuality. Deformed or physically defective or underprivileged children in particular often experience this introversional achievement in fancy. It is peculiarly sweet, if one is a cripple, to romp in imagination with one's friends; or, if one is homely or graceless, to know vicariously the thrill of attractiveness and grace; or, if one is poor and doomed to continue so, to soar on the wings of fancy to a land of wealth and opportunity. We shall refer later on in the chapter

to dangers to the personality that may come about from too much daydreaming.

4. It Drives Him To Achieve, To Accomplish

This would be a humdrum world indeed, even for grownups, were it not for the motivating power of the imagination. What is the impetus, for example, that urges the novelist to create a best seller, the builder to execute his plans for the house, the mother to sacrifice her good years for the training of her children, if it is not the beckoning hope eventually to achieve the long-striven-for novel, the beautiful new dwelling, the goal of proud parenthood? What, indeed, keeps the worker at his job, but the prospect of receiving his pay check; or makes him spend it, but the projected images of the commodities or services it will buy?

Among children the motivating power of the imagination is still more powerful in many ways than it is among adults. Here is imagination dynamically at work, not merely in conjuring up daydreams of achievement but actually in casting its deep spell over the child and pulling him forward to actual and tangible accomplishment. The schoolboy putting himself through the long training of yodeling, of throwing a swift curve, of developing strong back and leg muscles, is buoyed up during the grueling process by the inner projection of himself forward to the time when he can yodel melodiously, or when he can strike out a baffled batsman, or when he can sweep across the finish line a good yard ahead of his nearest competitor. The schoolgirl diligently working on her nature collection, or making a new apron for herself, or practicing her scales at the piano is similarly urged onward by the vision of herself shortly receiving coveted recognition for an excellent collection, or wearing and displaying her handiwork, or playing some day at morning exercises in school. Older children plan high school and college, choose lifework, etc., on the same basis. These inner previews of what one is ultimately to become or to produce keep innumerable hosts of children doggedly and even sacrificially at work to hew out of dawning tomorrows the flattering and attractive status that awaits those who have done well.

5. It Tempts Him To Elaborate upon Experience

From his limited and restricted experiences, a child can at best get only the briefest and most obvious insight into the nature of the

things, forces, and events that impinge upon him. His range of exploration is tolerably limited, and his contacts definitely curtailed. Yet he does achieve a broad, if shallow, sampling of the material environment, and that is sufficient to goad him to bring imagination to bear upon experience, to whip up an interesting juvenile conception of it, and to interpret it according to the fancy of the moment.

The results of the infiltration of fancy into the perceived world about him may be observed in the play reactions of any child. In the strength and prowess of his father, for example, a boy is likely to have utmost confidence, as evidenced by the proud claim that "My father can 'lick' your father!" after it has been shown that the second father's son could "lick" the first man's, and has done so! In comprehension of adult experience and status, a child will manifest amusingly partial understanding. Grownups are commonly adjudged to be superior beings and extremely happy because they are grown up and do not have to be bossed around by somebody. The years of dependence stretch out endlessly into the future for many youngsters who are inclined to feel, so slow is the passage of time, that they will remain children and hence dependent forever.

In reproducing their surroundings through drawings and sketches, children will show inattention to some details, surprisingly faithful attention to others. Perspectives will be poor and proportions awry. Spatial distances are well nigh meaningless, a mile and a hundred miles or a million being equally incomprehensible. Time concepts also are extremely unreliable, whether of hours or of years. "We went ten hundred million billion miles in our car yesterday!" exclaimed a seven-year-old to his admiring but less traveled fellows next day. With the lesser concepts of seven or eight, or even twelve and fourteen, as applied to years, children are fairly familiar because they are accustomed to hearing and telling about their ages or those of their brothers and sisters and companions. Of greater time concepts "fifty years," a "century," and the like, they have no adequate understanding, and their talk reflects this error when, for example, they opine that "that house is ten hundred years old," or that "the world is a hundred years old."

Events, conditions, or situations experienced in one connection may be projected freely and uncritically to other connections. Ancient or distant peoples and their ways of living, which they have read about, children may reinstate in imaginative reflection as existing contemporaneously. Partial concepts of culture epochs or

periods, they may apply as universal. Returning from a trip with his parents to Oklahoma, a Massachusetts eight-year-old expressed keen surprise and disappointment that he saw no stagecoaches and no Indians on the trip!

The expressive life of children must be expected to be, therefore, a combination of true and untrue, of real and imagined. Experience is a mosaic, and parts of it are juxtaposed that have no essential unity. "East is East and West is West," indeed, "and never the twain shall meet"; but in their elaboration of experience, children find nothing incongruous in jumbling things together uncritically. It is this naïve and illogical juxtaposition of ideas and memories, bound loosely together by the necromancy of imagination, that makes much of the conversation and the expressive activities of children so delightful to discerning and understanding adults.

6. It Provides Him with Thrill and Excitement

Merely to play, in the sense of shooting arrows, or riding a bicycle, or climbing a tree, or searching for a hidden companion, is mildly pleasurable. When, however, the imagination is turned loose on the play situation, the joy may become inexpressibly great. If, instead of mechanically shooting his arrows at a target or at random about the yard or lot, a boy can creep through a thicket (an imaginary one, it may be), with taut bowstring, steal up upon a concealed enemy, and shoot his arrow straight through his breast, there is a tingle and a thrill about it all that beggars description. If, having learned to ride his bicycle, instead of aimlessly riding to and fro and up and down, he can guide it dexterously and breath-takingly along a narrow wall or along the edge of a ridge or precipice, or if he can fold his arms and coast down grade, weaving in and out of pedestrian and vehicular traffic as he goes, he experiences an infinitely deeper satisfaction. If, instead of merely climbing a tree, he can bend down its topmost branch under his swaying weight until he can step off onto the upswung shoulder of his chum, he is undergoing an inner thrill that no mere "shinning" a tree could quite equal. And if when he sights his chum in the distance, he can creep stealthily up on him and shout in his ear loudly enough to make him leap into the stratosphere, he will be delirious with joy!

A nine-year-old boy boasted to his long-suffering chum that he had invented what he termed "A 'lectrizer." The device looked harmless enough when its inventor displayed it to the other boy. On

the surface it appeared to be an ordinary large cork stopper. Deeply imbedded in it, however, was a slender needle pilfered from his mother's sewing stand and pushed through the stopper just far enough so that its point barely pricked through the business end. As its inventor held the stopper firmly in his fist, needle end outward, he invited his chum to press hard against the stopper with the knuckle of his middle finger. The victim did as he was told, unbelievingly, and straightway emitted a howl of pain as the needle jabbed halfway through the joint of his finger.

In this simple little trick, there would have been no thrill unless the imagination of the boy could have envisaged the tormented rage that forthwith would be aroused in his victim. It is quite possible that the anticipated thrill was quite as satisfying as was the actual *dénouement* itself. You can no doubt multiply similar instances of trick playing in which the stage-setting imagination of the child has produced highly satisfying experiences to the young jokester, as well as to his victims, when they, too, gloat over each new potential unfortunate as he shows up!

THE SPONTANEITY OF IMAGINATIVE BEHAVIOR

One need not expect consistency in the imaginative play behavior of children. Not only is it very easy for them to change quickly from one type of activity to another, but it is likewise easy for them to modify *ad lib.* the original setup of any activity undertaken, in any or all of its aspects. This delightful spontaneity and informality of imaginative activity is one of the most interesting attributes of child nature. Under its influence, juvenile behavior becomes utterly unpredictable.

A five-year-old, drawing behind her a sleeping doll in her two-wheeled cart, paused to watch some workmen next door wheeling brick in a barrow. Immediately the doll was tossed aside, the cart was reversed, some stones and a few handfuls of dirt were thrown into it, and the child proceeded to push the converted wheelbarrow ahead of her down the walk. Pausing to watch a street sprinkler go past, she disappeared into the house, returned in a moment bearing a can of water, overturned the barrow to remove the stones and dirt, replaced it on its wheels, set the can of water in it and pushed the barrow jerkily to and fro spilling the water over the sidewalk and laughing happily over the whole process. Thus, what had started out 10 minutes before as the calm and motherly wheeling

out of a doll ended up with the hilarious imitating of a city sprinkler.

In any juvenile group this opportunism is likely to be apparent as the play shifts from one activity to another. The imagination comes in to touch ordinary play experience with color and romance.

After being told a George Washington hero story by the second-grade teacher, the children at recess time re-enacted the scene. The play yard became a sector of the Valley Forge encampment; a teeter-board became the breastworks which a pompous corporal was urging his men to throw up; the "General" was one of the taller boys who had drawn his cap down over his eyes and pulled up his collar around his neck. Hardly before the stage was set, however, from another part of the yard came the whoops of several boys who were playing circus, and presently the "General" of a moment before had forsaken the breastworks and was now a goose-stepping ostrich on parade, while the corporal and his men were, respectively, a tiger, two giraffes, a lion and an elephant. As the parade gathered other participants in animal roles, the teeter-board—alias breastworks—became handy bleachers from which the girls and several more boys witnessed the march of the animals. Within another three minutes, like the turning of a kaleidoscope, the scene was transformed completely into a modern battlefield, the teeter-board—alias the breastworks—becoming now a cannon mounted upon a gun carriage. The weapon was trained hastily upon first one enemy aircraft, and then another, as two gunners fell on their stomachs at the low end of the "cannon" and aimed it at marauding planes overhead. The din of firing, the sharp recoil of the piece, and the huzzas as enemy airmen were shot down, were all very realistic. So was the sallying forth of the stretcher-bearers to bring in one after another of the men shot to earth; so, too, the professionalism of two "physicians" who hurried to their individual aid, felt their pulses and stanched the "blood" issuing from their anatomies.

In this entire three-act performance, the actual activities comprised running, throwing oneself down upon the ground, parading to and fro, shouting, and handling. In themselves, these motor responses were simple and trite. Imagination, however, lent to them fire and suspense and dash and dramatic purpose.

THE ROLE OF IMAGINATION IN CHILDREN'S LITERATURE

Writers of books and stories for children have always assumed—and rightly so—that most young readers are extremely fond of fan-

ciful tales. The perennial popularity of *Through the Looking-Glass,* depicting the adventure of a girl in the land behind the mirror, where talking animals and elfin men and women and kings and queens and artisans carry on exciting days, is due to the charm with which Lewis Carroll weaves fanciful experiences into the life fabric of his creatures. Children warm readily to this necromancy and enjoy its spell to the full. Most adults, sophisticated though they may be, find it easy to revert to an earlier stage of their evolution and occasionally to enjoy again the fascination of Alice.

Alice is but a type, of course, symbolizing all the best in children's literature—classic and modern. A hasty survey of the newest books on the children's counter finds little or nothing that smacks of mundanity or humdrum. Even biographical material, popular science, and purposeful books depict their themes in terms and pictures designed to intrigue the fancy of their youthful readers. Beyond these, there are scores of new books for children that deal with animals and insects, with natural phenomena, with children, with adventure, excitement, and thrill. Themes portraying mystery, suspense, surprise, are always sought after, as are also books about sports, airplanes, hunting, sleuthing, etc. While most of them are fanciful in theme and plot, they avoid the mistake of being too far removed from a basal plausibility which modern children seem to require in their books.

IMAGINARY GAMES AND PLAY

We have already referred in Chapter 5 to the favorite play activities of children. In many of these the charm lies in the free rein they give to the player's fancy. With primary-age children in particular this flight of the imagination, coupled with the rhythmical motions of the play itself, is especially satisfying in such games as London Bridge, Farmer in the Dell, Run Sheep Run, and the like. At the same level, the imagination contributes much to the enjoyment of non-rhythmical games like I Spy, Hide the Thimble, house, school, brownies and fairies, Uncle Wiggly, etc.

Make-believe activities are likewise extremely popular at the primary level and continue to be indulged in, on occasion, throughout the elementary-school period. Girls especially like to dress up in long gowns and high slippers, with hats and gloves, and to parade up and down the walk or the street, for all the world like their sophisticated elders.

Mary is 12 years old, and greatly intrigued by such grown-up articles as high-heeled shoes, jewelry, compacts, cosmetics, etc. On rainy days Mary and Jane, her chum, are likely to hasten to the former's home after school, where they have a play room. Once there, they dress up in the dresses and discarded hats and dancing slippers of Mary's older sister. In their play, they like to "go visiting," or "attend a theatre, or opera" or a "dance." Paint and powder are generously applied to their smooth, clear skin. In their conversation they ape their elders. One day, while they were apparently "at a restaurant" drinking tea and gossiping about town affairs, the following conversation filtered down the attic stairs and was recorded by the observer:

"Yes, Jane, Bob and I went to the country club dance last night! We had such a marvelous time! But, my dear, you should have seen Edna B! She looked positively frightful in her last year's evening gown! It was too short and too tight! Her escort only danced twice with her all evening! I really felt sorry for the woman!—But Jane, dear—why weren't *you* there?"

"Oh," answered Jane. "Donald and I were going, but his father was using the car, so we played bridge, and had a very pleasant evening at home, just for a change!" [1]

Primary-age boys, too, enjoy make-believe play, but they would never resort to aping the dress of their fathers! Their make-believe activities take the form of prowling about as "Indians," "hunting" for wild animals, creeping up upon and pouncing upon their "enemies," careening off to "fires" and "accidents," driving their "automobiles" at breakneck speed down the sidewalk and through the streets, etc. Even their imaginative play has in it the element of plausibility and verisimilitude.

Older children in the intermediate grades, while they are becoming more realistic in their play activities, still, from time to time, find make-believe intriguing. They will stage pitched "battles" between two "armies"; build skyscrapers and steam shovels and suspension bridges out of their constructional toys; dramatize the foibles of adults and mimic them with unbelievable realism; "hawk" the wares of pedlars; imitate the jargon of the ragpicker; ape the circus clown, the drunken man, the neighborhood grouch, the fortuneteller, the magician, and the radio comedian.

Returning home around five P.M., Bob's mother was startled to hear a loud crash issuing from somewhere in the direction of the

[1] Averill, *Adolescence* (Boston: Houghton Mifflin, 1936).

kitchen. Had the crash not been followed immediately by boyish shouts, she might have suspected that burglars were at work. As it was, she understood that Bob was mixed up in some sort of episode, and proceeded in the direction of the kitchen to investigate the reason for the din. At the doorway, she beheld the spectacle of eleven-year-old Bob trying to extricate himself from beneath a pile of chairs in the middle of the room, and his pal, Joe—likewise 11—sitting beneath an overturned table nearby, nursing a sore shin. An explanation being requested, the woman was advised that in a movie the boys had seen the afternoon before, a magician had been able to cause a girl to float in suspension through the air from the front of the theatre to the rear. Bob and Joe were merely experimenting to see if they could reproduce the feat. Boy-like, they had varied the act somewhat. Levitation not being possible, they had built up a tower of chairs at the top of which, balanced dizzily, Bob was to precipitate himself lightly across space to Joe, standing on a chair atop the dining table, who was obligingly to receive his catapulted body in order to mitigate the force of his arrival at his objective.[2]

Probably few human spectacles come to the eyes or ears of elementary-school children, which they do not imitate in their play. A ten-year-old boy who had seen a parachutist at the county fair jumped from an upstairs window of his home, clinging to an open umbrella to ease him down to *terra firma* and to break the force of his landing. A twelve-year-old boy, intrigued by the skill with which a circus clown could gyrate around the ring on a single-wheeled bicycle, removed the front wheel from his bicycle and practiced the art for himself. Two country boys, living a half mile apart, constructed a heliographic system of communication by night between their two houses, blinking Morse code by the hour across the intervening space. The theme of their code messages was always the status of the F.B.I. hunt for an international spy who had thus far eluded all attempts to apprehend him. Both boys, needless to say, were independent detectives who were hot on the trail of the culprit. A twelve-year-old girl, fascinated by a popular juvenile movie actress, adopted her manner of dress, speech, and hair-do, and made active plans for journeying to Hollywood shortly to enter moviedom. She spent much time rehearsing imaginary roles for which she believed herself to be peculiarly well fitted, in anticipation of a probable assignment.

[2] *Adolescence, op. cit.*

IMAGINARY FEARS

In Chapter 2 we paid some attention to the conditioned fears that trouble children. We may add here a paragraph or two on the general subject of imaginary fears. Most young children have vivid imaginations, and it is easy for them to seize upon some unhappy incident or some tragedy that has come to somebody else and apply it apprehensively to themselves. Moreover, some things they overhear in the chatting of their elders may worry them; a situation in a story read or told to them may be elaborately reconstructed in their own lives; or the very insatiability of their imaginative conjurings may create bugaboos of various sorts that come to hold terror or presentiment.

Death of a friend's mother or father may be the cue for a nameless terror that something might happen to one's own parents, and a child may pass days of agonized foreboding before it is possible to throw off this fear. To the random remark that Mary does not resemble either of her parents, Mary's ever-ready imagination may whip up first a suspicion and shortly a certainty that she is not really her parents' child, but that they adopted her and have kept the dreaded information from her. Not a few children pass through a period in middle childhood in which they are frightened lest they be left all alone in the world. Still other children have been so warned by thoughtless or psychoneurotic parents against fraternizing with strangers, or against catching disease, or being attacked by mad dogs, and the like, that they are terrified at the approach of unfamiliar people, morbidly apprehensive over getting sick, afraid to pass even a friendly dog. One girl of eight, thoroughly alarmed by a bad fire that nearly destroyed a house next door, lived for weeks and months in constant fear that her own house would be destroyed in the same way.

Most unfortunate and reprehensible of all fears that get root in children's imaginations, however, are those related to sex and the sex organs and functions. This whole subject is still, in spite of the efforts in recent years of medical men and of psychologists to ameliorate the situation, very much in limbo, so far at least as parents and their children are concerned. Possibly the first questions about any sexual function arise, in most children, in connection with babies and where they come from. The flippant information that they are brought by storks, or that they came in bags of flour, or that the "doctor man" brings them, or that mother gets them at

the store, fails to satisfy the strong curiosity of children. Besides, there is usually some guttersnipe, or some loquacious adult, or perhaps some evil-minded person who supplies the inquirer with information couched in the language of the gutter. It is hardly to be wondered at that, in a matter obviously concealed from them by their own parents, and regarding which their simple questions are parried, ignored, or actually denounced as wicked or vile, children's imaginations become preoccupied with it to an unwholesome degree, and that they develop feelings of insecurity and dread.

Children rarely live to be older than seven or eight before their attention is called pleasurably to their own sex organs. Boys in particular—partly because of the snug-fitting clothing they wear, partly because of sensations they receive from climbing and rolling, partly because of loose and often dirty talk they overhear from older boys —come to experience an agreeable awareness of the organs in question. Girls, because of looser clothing, less strenuous physical contacts, less exposure to indecent speech, and because the organs are less readily manipulated, may escape the actual handling that most boys assay sooner or later. Children of both sexes, however, learn in early childhood—long before the primary period—that the region is highly sensitive, and they may commonly be seen to hold their hands at the groin whenever they are excited about something.

This manual position has at first no sex connotation, but is as reflex and unstudied as smiling or jumping with glee. Because parents commonly snatch their children's hands away from the area, with or without oral reproach or warning, children readily conclude that there is something "not nice" about it all. By the time they are a bit older—say, eight years—boys in particular learn to play with their organs, and shortly to masturbate. Frequently, it is the clandestine imitation of some other boy who has learned the art and is acting as instructor to his pals that starts a boy in the practice. Once the thing has been started, it may continue for some time before the parent discovers it.

If parents could understand the situation and would refrain from severely punishing a boy who is caught masturbating, the thing would shortly run its course and do no harm. As it is, however, there is often a scene, in which the culprit is warned that if he ever does such a thing again he will go insane. Subsequently, particularly when he goes to bed or wakes up in the morning, he is watched as by a lynx for any signs of recurrence of the practice. Inwardly fearful that he has already ruined his sanity and at the same time

unable to control the habit, the boy is little short of terrified. To make matters worse, he is informed by his mother or father that it is easy to see in a boy's eyes whether he has been doing this filthy thing and that he need not try to conceal it from them. Weeks and even months of paralyzing terror may consume the child, and he may imagine all manner of evil consequences to his health and sanity. Compelled to observe the utmost secrecy for fear of detection, he experiences still greater anxiety and shame.

To cap the climax, his parents, suspicious of him, talk often of children who lose their ability to pay attention to their work, or who lose their memory, or who are otherwise incapacitated by sex play, until the unfortunate boy, who needs nothing so much as sympathy and help, becomes a victim of the most poignant imaginary fears. He shuns his mates, fearing that they may read the telltale look in his eyes, avoids the gaze even of his teachers, continues to falsify the situation to his parents, and is certain that the physical weakness and depletion they have warned him will destroy his vigor and manliness have already overtaken him. Thus, he comes to avoid active physical encounters in play and competitive activities and believes himself to be a hopeless and weak-spined boy who is tottering on the verge of physical and moral ruin.

Parents need to understand that it is not the physical act of masturbation, but rather the fear that has been implanted in a boy's mind, coupled with the secretiveness and the shame, that is serious. If they used the energy they misuse in denouncing and punishing and warning, in seeing to it that the boy's life is filled with interesting physical activity, that he lives each day in full childish satisfaction, and, incidentally, that his sex organs are kept thoroughly cleansed so that there will be no needless irritation from them, they would have little need to worry about abnormal sex behavior. They should understand, too, that when masturbation does occur, as it probably does in most boys as they approach puberty, it should be met with sympathy and helpful advice, and with the fullest encouragement of frank and open discussion of the problem. Except in the more extreme cases, the practice will ordinarily be discontinued when such methods are pursued.

DREAMS

Most children, as well as most adults, dream in their sleep. Why it is that when the body is in repose, repairing its worn tissues of

yesterday and renewing its energy for tomorrow, the brain is frequently active, would be difficult to say. Undoubtedly at times there is some digestive disturbance that stimulates the circulatory system, so that there is for the time being greater activity in the blood vessels of the brain. Sometimes, too, the body becomes a bit cramped as it lies in bed, or the covers may get twisted about one's neck, or an arm or foot "goes to sleep," or there is a change in temperature in the room so that the body becomes overwarm or chilled. Any of these may arouse the brain to a low degree of cerebration without actually awakening the sleeper. It is easy to account for dreaming that occurs under such circumstances. Dreaming that one is being compressed under a heavy weight, or that one is struggling to break the grip of a monster, or that one is suffocating, "couldn't catch a breath," has fallen into the lake, etc., becomes readily understandable. At least, the physiological or physical basis for such dreams is obvious. No psychoanalyst, however competent, could hope to unravel all the ramifications and bizarre cerebral patternings that are woven from the basal physical warp into the woof-thread of dreams of this order.

More incomprehensible still are those dreams that appear to arise spontaneously, without any organic disturbance or discomfort to arouse the brain through remote vasodilation in the cortical areas. Probably most dreams, both of children and of adults, are of this general type. It is possible that people who are ready dreamers receive very strong visual, auditory, or other impressions during the waking hours, and that in sleep some traces of these memories come back to perform upon the cortical stage. There is, however, so much cerebral transformation of the original experiences, so much disguising and distortion of them, so much change of emphasis, and so much infiltration of other mental content utterly unrelated to them that the resulting admixture of dream stuff may be bizarre and undecipherable to the dreamer when he has awakened and recalled his dream.

Dreams may be divided into two general types: unpleasant or terrifying and pleasant or interesting. Probably the earliest dreams children have—at least the ones their parents notice—are decidedly unpleasant. A three-year-old awakens in the night with a shriek of terror. Equally terrified, the parents hurry to his bedside to find his eyes wide open and fixed in fright upon some imaginary object he may or may not be able to identify in language. His breath comes in gasps, his body is contorted, hands clenched and

feet tossing. Altogether he presents a characteristic picture of extreme fright. The condition—known as *pavor nocturnus* (night fear)—is readily recognizable. Nobody could possibly explain its basis, although it probably stems from retained fragments of some experience had during the waking hours of the day or evening preceding the dream. The glare of the eyes of the family cat suddenly fixated, a picture of an animal in a book, a story told or overheard, a cripple, or some uncouth or uncomely person seen shuffling past, partial personification of any inanimate object—these are among the day's experiences that may reinstate themselves hours later, in whole or in part, as a child lies sleeping, and smash their way into dream consciousness. The inner spectacle of being chased or attacked by some of these originally incorporeal or harmless creatures, now become corporeal and threatening, is sufficient to terrorize any child.

Research has indicated that frightening or unpleasant dreams are more common among children than might be supposed, especially among the younger ones. One study [3] found that 43 per cent of children under four, and 39.2 per cent of those between five and eight, had had some unpleasant dreams during the week included in the investigation. In the nine-to-twelve age group there was found a sharp falling off in the number of such dreams, only 22.2 per cent reporting them. The various contents of unpleasant dreams were tabulated by these investigators as follows:

	1–4 yrs.	*5–8 yrs.*	*9–12 yrs.*
Personal difficulties	26.7%	33.3%	54.5%
Difficulties of friends, pets	13.3	6.3	18.2
Animals	40.0	15.9	9.1
Strange or bad people	6.7	20.6	13.6
The unknown, dark, etc.	6.7	7.9	0.0
Loss of property	0.0	4.6	0.0
Impersonal dangers	6.7	9.5	0.0
Unclassified	0.0	1.6	4.5

This study represents a record kept over a seven-day period by parents of 519 children. The figures are probably typical for most children. The significant thing is the steady increase with age of

[3] J. C. Foster and J. E. Anderson, "Unpleasant dreams in childhood," *Child development monographs*, 7 (1936), 77 ff.

dreams in which the dreamer is involved in personal difficulties, and the corresponding diminution of dreams involving animals.

Fortunately, much of the dreaming of children is pleasant. In their sleep they relive the happy experiences of the day, or find adventure in familiar settings. They dream-play with their chums, their pets, their favorite toys, their brothers, their sisters, their parents. They win the game, outrun or outslide or outdo in some other way their juvenile competitors. They find themselves in dream-possession of bicycles, airplanes, automobiles, motorcycles. They have brighter and better toys than they actually own; they possess bursting bags of candy and sweets; their pockets bulge with money. In less sumptuous dreams, they may engage in their customary play activities, experiencing personal triumph or success, rarely engaging in altruistic endeavors, and possessing resources, powers, or material things well above the level of everyday reality. In this sense, children's dreams do not differ very much from the dreams of their elders.

DAYDREAMING

We have referred several times, in passing, to the subject of daydreaming. At this point a bit more should be said regarding this delectable but sometimes dangerous practice. Everybody daydreams more or less, from the earliest years of childhood to the end of life, the only difference being perhaps that the young dream forward while the old dream backward. "Your young men shall see visions, and your old men shall dream dreams," said the prophet Joel,[4] without specifying any age limit to the practice. In general, it appears that daydreams afford the thwarted individual a balm for his spirit and a bright promise of better things that are to come if he perseveres. Kept in proper perspective, they may be powerful stimulators to further effort and greater achievement.

The daydreaming of children, like that of their elders, is an introversional tendency to achieve in fancy what one has failed to achieve in reality. A boy who is physically weak or cowardly, and who would never think of such a thing as joining battle with his detractors or competing athletically with other juveniles around him, needs but to withdraw into his inner private world of dream to experience the sweet delights of domination and to hear the gratifying applause of his fellows. A girl who has been denied the boon

[4] Acts 2:17

of good looks and personal charm may, through withdrawal into that same inner dream world, know all the thrill of physical beauty and grace, and become local arbiter of the juvenile cult of feminine charm. Similarly, any child who has failed to impress a teacher, or to get the coveted bicycle for a birthday present, or to win the prize for attendance, effort, salesmanship, or to know the satisfaction of a happy home and parents, or to be invited to spend the summer with Uncle John and Aunt Martha, or to be made captain of the "team," may achieve through daydreams a mitigation of these wounds to the spirit and a vicarious triumph that makes reality almost dull and lustreless by contrast.

Daydreams in childhood—or in maturity—may be either constructive and challenging, or destructive and unwholesome. In so far as they serve to create a new zest and determination to make hopes come true; or to tide the struggling, baffled individual over times of trial and defeat by showing him, as it were, the promised land of tomorrow; or to release his spirit for the time being from the mundane, workaday world of reality and hardship and restore its freshness and balance—to this extent daydreams are beneficial, and should be so regarded. On the other hand, to the extent that they come to substitute revery for action; or to discourage the slow and plodding efforts so often needed to reach one's goals; or to replace for things-as-they-are, things-as-they-are-imagined-to-be; or to turn the edge of ambition and determination—to this extent daydreaming becomes a vice, and in some cases may even be a prelude to mental disease. Large numbers of inmates of our mental hospitals labor under delusions akin to daydreams, having reached a point where they find it impossible to distinguish fancy from reality.

LYING AND IMAGINATION

Honesty at best is only relative. In children there occurs a considerable amount of lying and untruthfulness. Some of it is developmental and will lessen with advancing maturation. The imagination of young children is ordinarily keen, and it is very easy for them to tell tall tales that have no foundation in reality. Such tales are not to be classified as lies; at least, they ought not to be so regarded. Rather, they are the resultant of brimming sensory experience shot through and through with fanciful interpretations. A five-year-old, for example, bursts into the room and startles his elders with the excited statement that he has just killed a big bear in the

dooryard with his bow and arrow. In fancy, he has actually done so, and the possibilities of the situation so impress him that he runs into the house to announce his prowess. There was no bear, no shooting; only a boy with bow and arrow and an imagination.

Untruths of this sort, while obviously they are not to be accepted by a child's parents as faithful accounts of events, should be interpreted as imaginative creations that transcend reality, it is true, but that serve a purpose in the developing ego of the child. The imaginative falsifier should be met on such occasions not with shocked denunciation, nor with warnings of future punishment if such tales are repeated; rather, his stories should be greeted with the same light-hearted pleasure with which they are recounted. Subsequently, as the child reports other instances of imaginative achievement, it will be wise for the parent to enter into the spirit of the occasion, while at the same time letting it be mutually understood that of course such stories are make-believe. What is make-believe and what is "really-really" come thus to be differentiated consciously in the child's mind, and he learns that it is possible to enjoy experience in either area so long as it is understood by all concerned which area is under consideration at the moment.

There are other kinds of untruths, however, that are definitely lies told with the intention of giving a false impression to someone else. Various situations provide the background for the emergence of children's intentional lies. First may be mentioned those in which the child's security is endangered. If, for example, a boy has done something that he knows to be wrong and that will bring punishment to him if it is discovered, he will be likely to lie out of it if he is queried about it. Or if he has been expressly told not to do something, but under stress of the moment or the urging of his mates he is constrained to do it, he will try to conceal his misconduct from his parents by lying. Or again, if he fails to do the expected thing, or to live up to his usual good reputation, he may resort to lying to cover up his failure.

Examples of such protective lying in order to maintain one's security are innumerable at the juvenile level. A boy takes a prominent part in a fight, defaces school property, breaks a window with his ball, plays hooky from school, steals some apples from a neighbor's tree, goes swimming in a forbidden "hole" or at an unseasonable time, forgets the errand he was sent to do, neglects his homework—in these and hosts of similar everyday departures from the conventional or expected, children may find it difficult to admit

their errors and tell the truth. They early make the discovery that the easiest way to protect themselves and retain their status with parents or teachers is to lie out of their indiscretions. The cleverest children can usually manufacture whole strings of adjuvant lies that will support the tissue of their original lies and leave them in an impregnable position. One psychologist goes so far as to say [5] that lies of this sort sharpen the wits of the fabricator by compelling him to invent plausible stories, to remember what he has previously contended, and to be consistent throughout.

A second source of motivation for much juvenile lying is the strong urge in many children to achieve notoriety. In a somewhat prosaic world in which they are by the very nature of things physically and mentally and socially inferior, children easily make the discovery that it is possible for them to win popularity or acclaim by the fabrication of tales in which they conduct themselves with great fortitude, or in which they undergo very thrilling and exciting experiences, or in which they show great sagacity or presence of mind. Imaginative lies springing from this soil may be harmless or they may be highly dangerous, often causing serious trouble for innocent people who may be implicated in the tale. Back of these fabrications there may exist a personality that is hungering for the limelight, and in order to bask in it momentarily the fabricator may involve other people to their lasting discredit. Lurid stories of adventure, of travel, of very rich relatives who are supplying unbelievable sums of spending money, are built up by older children of both sexes in their efforts to create a sensation or to arouse envy in their mates. If this sort of imaginative lying persists up into adolescence, and particularly in girls, it may and frequently does lead to defamation and ruin to the characters of any persons, however reputable they may be, whom they may choose to implicate.

The most reprehensible feature in imaginative lying to escape punishment or to achieve status and limelight, apart from the possible involvement of other people, is the danger that if persisted in it will habituate children to replace effort and struggle with excuses and lies. If a child can explain away all his shortcomings and failures by lying, or if he can achieve the delectable experience of being admired or envied by his fellows through the same means, he may become the most shiftless, supine individual in his group. If he habitually uses his imagination in conjuring up weird or fanciful

[5] E. A. Kirkpatrick, *Imagination and its place in education* (Boston: Ginn and Co., 1920) p. 143.

accounts of his prowess, or excuses for his failures, instead of applying it constructively in planning out paths of real achievement and conquest, he will be likely to pass out of childhood into adolescence, and later on into adulthood, lacking in strong purpose and unstable in character.

IMAGINATION IN THE SCHOOLROOM

We referred at the outset of this chapter to one of Poe's imaginative tales and made the observation that, bizarre as was the total scene depicted, it was made up of simple individual elements which not only Poe but everybody else had experienced. In precisely the same way, the school child must base his imaginative construction of any problem situation encountered, as well as his interpretation of it, upon specific past experience. In this sense, there is literally "nothing new under the sun." A bit of underlying psychology may be helpful at this point in aiding the student to appreciate the significance of experience in stimulating the imagination.

You will note that the root of the word "imagination" is "image." Now an image is a memory left in the mind by some previously perceived object or event. If a boy has seen a cow, he retains an image of the animal; if he has heard a locomotive whistle, he retains an image of the sound; if he has tasted onions, or smelled them, he has a memory image of both processes; if he has felt the roughness of sandpaper or the smoothness of velvet, the cold of winter winds, the heat of summer sunshine, he retains memory images of these experiences. Images, therefore, are memories and imagination becomes the manipulation of these individual memories to produce new combinations or new wholes.

From this, it follows that unless a child has memory images of many unassorted experiences, he lacks the mental stuff out of which to create new patterns. It therefore becomes a lively problem of the kindergarten and primary school to introduce children to the greatest possible number of concrete and specific experiences, to the end that they may have an ideational basis for mental elaboration. Before a builder can build he must have bricks; before a child can build imaginatively, he must have memory images. If he has enough of them, he possesses the first requisite for creative building. This same principle obtains all along the line of human effort at every life age and in every area. Back of every new creation must be large experience with life. A prime task of teachers of young children,

as indeed of older ones as well, is to expose their pupils to such life experience.

Ideally, pupil experience should be first-hand, rather than second-hand or vicarious. Since, however, direct contact with the world of things and processes is possible only to a limited extent in the school setting much attention has to be paid to the provision of vicarious experience. Models of geographical features, of canal locks; diagrams of arithmetical problems, of battlefields; pictures of notable buildings, of street scenes in Shanghai; specimens of the cotton boll, of Dutch wooden shoes; moving pictures of the bursting of a cocoon, of the mining of coal; film slides of the life of Pasteur, of the Boston Tea Party—these experiences may become the points of departure for much imaginative learning activity. Care must be observed, of course, that the young learner does not miss the kernel for the husk, as sometimes happens when, for example, he studies the diagram or the picture simply as a diagram or a picture and is not helped to go beyond the immediate stimulus to the greater and more momentous things to which it ought to lead his fancy.

Teachers can do much to encourage their pupils in the use of creative imagination in every subject of the curriculum. The following incident illustrates well the possibilities of this sort of encouragement:

In a certain school there was a sixth-grade boy who had a strong liking for written composition and an equally strong distaste for social studies, notably for history. For weeks the boy begrudged the time he was compelled to spend daily in studying the latter, while delighting to do creative writing on any theme. One afternoon, after making a study assignment in history for the next day dealing with the capture of the fortress of Quebec on the Plains of Abraham, the teacher had a private conference with the boy before he started for home. "Tom," he said, "I want you to go home tonight and read over this story; then, I want you to take pen and paper and imagine you were one of General Wolfe's soldiers attacking the fortress. See how fine a story you can write!"

Next morning, Tom came to school with seven closely written pages, and with a new light in his eye. Here is a brief abstract of what he wrote:

HOW I HELPED TO TAKE QUEBEC

It was almost midnight. I could not sleep. Surely, I thought, there must be some path that leads up to the Plains of Abraham, though

our scouting parties in the late afternoon had failed to discover one. I arose, crept silently through the ranks of sleeping soldiers, avoiding the sentries, and came soon to the outer edge of the encampment. There above me in the darkness loomed the steep wooded slope. I seemed to feel more alert than I had ever been before in my life. Plunging into the thicket, tearing my skin and clothing with cruel brambles and thorns, I searched for the path I knew must be there somewhere. For a long time in the darknessI wandered about in circles, making no headway and finding no opening in the dense thicket. At last, after more than an hour, I suddenly found my feet in what appeared to be a well-beaten footpath. Sure enough, as I pressed forward, the path wound steadily ahead of me. Suddenly in the gloomy darkness a French sentry loomed up before me. Fortunately, I saw him before he did me, and with fixed bayonet I ran him through. He made no sound, and I rolled his body out of my path. Farther on, I dispatched another sentry, and then another—silently, swiftly. At last the path emerged on to the level plain, and from my hiding-place in a clump of bushes I saw in the distance the dim lights of the fortress cutting through the gloom. I had found the way! Hurrying back down the hillside past the bodies of the stupid sentries, I arrived soon back at the encampment. Filled with a great joy and a great eagerness, I threaded my way to the general's tent. Two sentries barred my approach. "I must see General Wolfe, at once!" I cried. "I have important news for him." "The General is sleeping, and must not be disturbed!" they said. "But it is most important!" I insitsted. "Let me pass!" "No," they said, holding me back with crossed bayonets. "You must wait until morning!" The noise of our voices wakened the General. "What goes on there?" he demanded. "A soldier to see you, sir!" they replied. "Please, General Wolfe!" I cried. "I have very important information that cannot wait!" "Be gone, back to your company!" insisted the soldiers. "The General will see nobody at this hour of night!" "Admit the fellow," commanded the General. "You will never regret it!" I exclaimed, dashing past the sentries into the tent. "I have found the path up the mountain side!" The General stood up and grasped me roughly by the shoulder. "Boy!" he threatened. "If this is a falsehood, your life shall pay the forfeit!" "It is no falsehood!" I assured him tensely. "I have found the path, and have been to the top of the hill and seen the fortress with my own eyes! Come with me, sir, and I will show you where the trail begins!" Grasping his sword and commanding the two sentries to follow us, the General hurried from his tent. In a few minutes we were at the opening in the thicket. "You see, sir!" I exclaimed. "There it is! I slew three French sentries on my way up!" "My boy!" cried General Wolfe, "You speak truly. The path is here! You have done honor

to England's uniform this night!" The camp was hastily aroused, and just before daybreak the English army filed up the path I had discovered. The General and I were in the lead, he following me. The rest of the story is soon told. You know how the fate of battle went that day. Surprised, unprepared for such an early attack, the French army was whipped. With my own bayonet I gave a mortal wound to Montcalm, the enemy commander. Poor General Wolfe was wounded too, and as he lay dying he pressed his sword into my hands. "Lad!" he faltered, "You—must—finish the—task—and—save—the—day—for England!" Everybody knows the outcome. Fortress Quebec was ours before the sun slanted in the west that afternoon!

Here is imaginative writing at its best. In it are all the gusto and melodrama and ego of an eleven-year-old whose fancy has been caught by the drama of events occurring in a history lesson. Obviously, the purpose of the assignment made to Tom was to stimulate his imagination, and the teacher expected he would produce a literary rather than an historically accurate piece of work, as indeed he did! Both these goals should be sought on occasion. Perhaps the former does more than the latter to arouse the interest, and certainly it does more to stimulate the imagination, of the learner.

The social studies are rich in materials for imaginative expression. Through the use of pictures, maps, historical novels, and adventure stories, through the keeping of diaries of imaginary events in which one has participated, through original travelogues, through films and slides, through talks and exhibits by pupils whose roots reach back directly to other soils and other countries, through essays and travel books and ticket books, it is very easy for teachers of social subjects to arouse keen interest in their pupils and to encourage them in creative and imaginative activities. There is a vast difference between geography and history taught, on the one hand, as the monotonous records of man's domains and achievements, and taught, on the other, as living, challenging, dynamic experience that may be enjoyed and interpreted through the eyes of the imagination.

As with the social studies, so with the literature of a people. This is one subject in the curriculum in which imagination knows no boundaries nor limits. From his earliest study of words and their images and sounds to his following of the adventures of Uncle Remus and Br'er Rabbit, or of Tom Sawyer, or of Heidi, or Moby Dick, and later on of those of the Ancient Mariner and Maggie and Tom Tulliver, the young reader is called upon continually to image

situations and scenes, and to create inner worlds of whatever richness and vividness he may be capable. Through imitative efforts to write in the style of a particular author, through study and exemplification of figures of speech, through attempts to write verse, essay, biography, and autobiography, through dramatizing challenging episodes and events, through constant encouragement to visualize the scenes read about, through "reporting" and "broadcasting," through reading, the school child finds plenty of ways in which to develop his fancy and make it a captivating part of experience.

The field of nature study and elementary science is another one rich in possibilities of developing keen images, along with the accurate observation of everyday phenomena and processes. The life history, habitat, and economic importance of birds, insects, and animals; the identifying and describing of flowers; the collecting and classifying of butterflies and moths; the study of heating and ventilating of home and school; the raising, cooking and preserving of foods; elementary astronomy—these objectives afford ideal opportunity for children to gain practice in accurate observation as well as skill in scientific handling of data. As these abilities increase in a child, they make it possible for him to reflect creatively upon derived problems and bring him at length to a level of comprehension that makes possible the dawning of true scientific curiosity, appreciation of the created order, and the wonder sense. There is no reason why the influence of his school study of such phenomena as these should not prepare every child to live more inquiringly, more chastely, and more awesomely in his world.

And so we might run through oll the other subjects in the elementary school curriculum, and find in each of them innumerable opportunities for the training of pupils to perceive accurately, to image clearly, and to make constant ideational or fanciful use of the materials his senses bring him. We shall, however, refer to but one additional school area: that of aesthetics. Since this is such an extremely significant topic, we shall devote the following chapter exclusively to its consideration.

PERTINENT QUESTIONS FOR DISCUSSION

1. Cite other examples, in addition to *The Pit and the Pendulum,* to indicate that the most fantastic tales are built up from ordinary elements thrown together in new patterns.
2. Cite an instance in which a child or a group of children indulged in highly imaginative play activity.

3. Make a list of the most imaginative and enthralling tales adaptable to ten-year-old children.
4. Can you furnish an example of a fanciful child re-creating his world, or some aspect of it, more to his liking than the actual world seems to be?
5. Do you know any physically deformed or inactive child who succeeds through imaginative means in finding a vicarious satisfaction?
6. Suggest a situation you have observed in which a child's imagination acted as a powerful motive to impel him to action.
7. Suggest illustrations of highly inaccurate time concepts in children. Do you note any refinement of them with increasing age?
8. What part does a child's imagination play in the planning of tricks, practical jokes, etc., on the order of the "'lectrizer" episode recounted in the text?
9. Observe (without being detected) the play of a five-year-old and note the readiness with which one activity changes spontaneously into another.
10. Find out what books your children are reading. To what extent do they appeal to childish fancy?
11. List several examples of "make-believe" play you have observed. Do some children not care for play that is not realistic?
12. Do you have any personal memories, or have you received any confidences from children, touching imagination regarding sex?
13. Ask your children to tell you some of their recent dreams. Can they be classified on some such basis as suggested in this chapter?
14. Recall your own early dreams. What was their general pattern, if they seem to have followed one?
15. Differentiate between constructive and destructive daydreams. Do any of your pupils appear to be confirmed daydreamers?
16. Illustrate a protective lie told by a child; a lie designed to win notoriety or envy.
17. Can you recall any specific untruth that you yourself told as a child? What was the motive that prompted it?
18. Show how it is that imagination grows, in turn, out of sense-perception and memory images.
19. Is not conscious imitation of an author's style likely to make a pupil slavish and destroy his originality? Or must imitation precede creativeness?

20. Suggest ways in which you are challenging the imagination of your pupils in connection with actual lesson units.

READING COURSE TO PARALLEL THE CHAPTER

1. JERSILD, A. T. *Child psychology.* 3rd ed.; New York: Prentice-Hall, 1947. Chapter 12.
2. KIRKPATRICK, E. A. *Imagination and its place in education.* Boston: Ginn and Co., 1920. Entire.
3. MORGAN, J. J. B. *Child psychology.* 3rd ed.; New York: Farrar and Rinehart, 1942. Pp. 267–89.
4. STRANG, R. *An introduction to child study.* Rev. ed.; New York: Macmillan, 1938. Pp. 175 ff., 322 ff.

CHAPTER 9

JUVENILE AESTHETICS

Some Children To Identify in Your Room

A child who . . .

(1) is an inveterate but not very talented sketcher;
(2) is talented above the ordinary for his age group;
(3) is especially poor and unpromising in expressive arts;
(4) is particularly skillful in some craft;
(5) is a superior dancer;
(6) possesses an exceptional sense of rhythm;
(7) is clever in adapting dance or rhythm to any theme;
(8) has a hobby and develops it consistently;
(9) reacts poorly to criticism of his aesthetic products;
(10) accepts criticism constructively, and profits accordingly.

GENERAL ORIENTATION

Drawing was ethnically one of the earliest forms of self-expression. Cro-Magnon man created in western Europe, some 15,000 or more years ago, an art that was astoundingly realistic. On the walls and roofs of the caves in which he lived one can still see sketches of huge super-life-size rhinoceroses, bears, horses, bulls, cows, bison, and sometimes men. Many of the pictures are painted in pigments that have resisted the ravages of time and remain today clear and bright. The purpose of these artistic creations of the cave man was, in part at least, to make records of the objects with which he was familiar, and of the events in which he had participated. Sleek horses and wounded bulls at bay vie with bison and deer-hunting scenes, all painted in rich reds, yellows, greens, and blacks. In a prehistoric age, when language was nonexistent, primitive man found in colored chalk, in charred bone and soot, and in colored earth ground into pigments, a medium of expression that would endure forever in subterranean caves, huts, and temples in France, Spain, and Germany. The themes he recorded were obviously the everyday experiences amid which he passed his days.

Exactly as the cave man reproduced in his sketches the panorama of his day of hunting and chasing, so the child finds absorption

in portraying with crayon and pencil and brush the objects of his everyday experience, touching them with his fancy and straining them through his appraising eye. Cro-Magnon man lived in a world limited to animals that he needed for food. Child-man lives in a world of innumerable objects, events, and experiences, so that his background for self-expression is far more complex. But his preoccupation with the objects experienced, his passion for color, and his incessant urge to record his impressions are timeless and racial. He is not required to consume any time in the slow process of grinding colors, or in bundling split reeds into brushes, or in climbing on a rock in a dim cavern, in order to achieve the expression of his fancy; pencil, crayon, paint and brush lie ready at his hand.

All a child needs is an experience: he is then ready to record it, with such embellishments as fancy may suggest. Out of his experience he garners the stuff for oral language, and latterly for reading and writing; but from it also he garners the stuff of which pictures and drawings are made, so that what he has seen and heard about may be photographed. In his use of formal language he is concerned with the outcome, with the use to which his skill can be put, with the things he can do with it. In his spontaneous drawing, however, his primary interest and delight are in the process of creating; what he creates has, once it is finished, no further value or purpose. It is likely to be promptly discarded and forgotten.

Kindergarten and primary teachers hold continually before children the enticing goal of being able, by and by, to read. As groundwork for later reading skills, they consume the major portion of any school day in surrounding their children with many-sided experiences out of which words and vocabularies and linguistic purpose may ultimately be constructed. In the process, the young learners become voyagers, discoverers, listeners to tales, analyzers of impinging situations. What more inevitable than that they should seek to draw and sketch and paint their impressions as they go along? Oral language about their experiences is intriguing to them; expressive language through their crayons and brushes is still more fascinating. Often they are sketching their version of a story before the teacher has finished telling it. We shall present below, first, two examples of this irrepressibility in creative expression, one at the kindergarten level, the other at the sixth-grade level.[1]

[1] For practical reasons, we have had to omit the color in the drawings shown in this chapter. The author is indebted to Miss Lillian M. Strand for reproduction of the originals in black and white.

KINDERGARTEN ART

Miss B, the kindergartener, had read her children, just before work period, a story about Timothy, the cat that was afraid of mice. Her twelve children, nine boys and three girls, went busily to work after the story was completed to depict in pencil and colored crayon their several impressions of the tale. The thing that intrigued them principally, it appeared, was the fact that the cat ran away when she spied the mouse, and hid herself in a clothes basket. The twelve drawings are before the author as he writes this paragraph. They represent all degrees of artistry at the five- and six-year level.

Judy, aged six years and one month, produced the best balanced and most artistic one of them all. She depicts a tiny mouse just emerging from a hole in the mopboard of the room, right. To the left is the figure of a girl about Judy's age, showing real startle at sight of the intruder. Her mouth is open wide, her fingers are extended protectingly, and even her triangular blue dress seems to stand out stiff with fright. She has a beautiful yellow coiffure, topped by a red bow; she wears a red waist and matching red stockings and brown shoes. Halfway between the girl and the mouse is Timothy, the cat, leaping through the air to get away from the tiny mouse. Both cat and mouse are penciled black. The proportions of the three figures—child, cat, and mouse—are excellent. The sketch shows good detail.

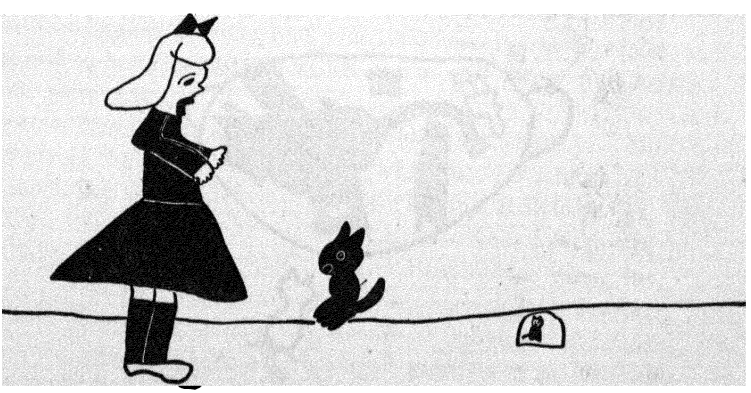

FIG. 1. Judy's conception of the three principal characters in the story: a girl, a frightened cat, and a bold mouse.

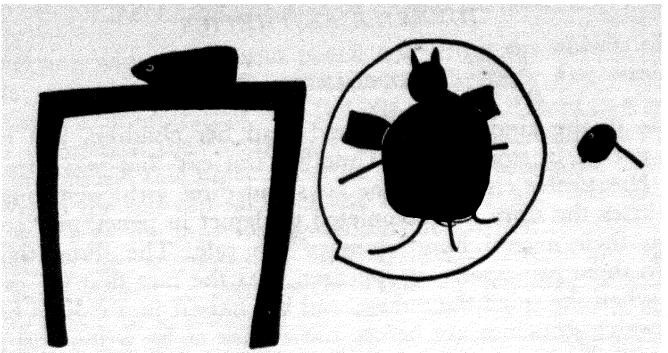

FIG. 2. Janet adds a table with a fish, minus a bowl, upon it!

In contrast to Judy's version of the experience, we have Janet's (age six years, one month). In Janet's sketch the mouse is represented by a small penciled circle, colored brown, with a penciled line protruding as a tail. The cat is shown lying within a larger circle. Tail and four legs are penciled lines. The two ears are realistic, but the blackened mass of the cat's body suggests rather a turtle than a cat. Beside her in the basket are two pieces of clothing, colored orange.

Stephen, aged just six, makes the basket a bit more realistic by placing two handles on it. The cat sleeping in it is legless, but has ears and tail. Five splashes of color around the cat indicate as many articles of clothing inside the basket, only one of which—a shirt—can be identified. The mouse, drawn only in penciled outline, sits just outside the basket, apparently watching the sleeping cat.

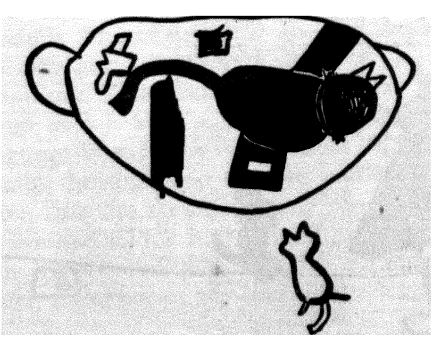

FIG. 3. Stephen's version. Note relative size of shirt in basket.

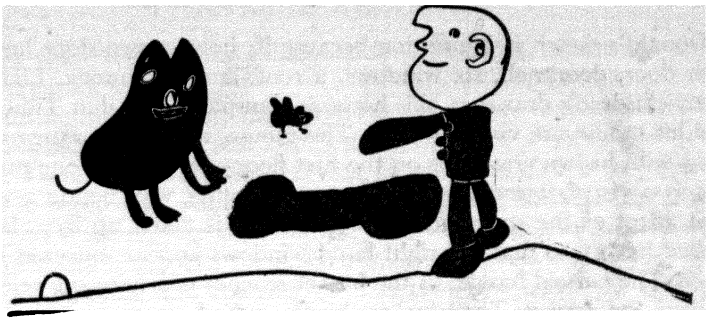

FIG. 4. Ronald's version.

Ronald's sketch and Beverly's (each five years and six months old) are interesting also. The former's omits the basket in which the cat went to hide himself, the young artist being content merely to draw his version of a man ordering the cat to kill the mouse, the mouse itself, Timothy, and the mousehole. The man wears a red coat, green trousers, and brown shoes. Green buttons are prominently placed on his coat. The mouse is scribbled over with brown crayon; the cat, two-thirds as tall as the man, is done in black pencil, with eyes, mouth, and nose deep black. Beverly's sketch shows only Timothy perched on the rim of the basket. He is outlined with blue crayon, colored with red except for the visible portion of his legs, which are blue. The basket is likewise red, with green handles. Cross-hatching in pencil gives the idea of the weaving of the basket.

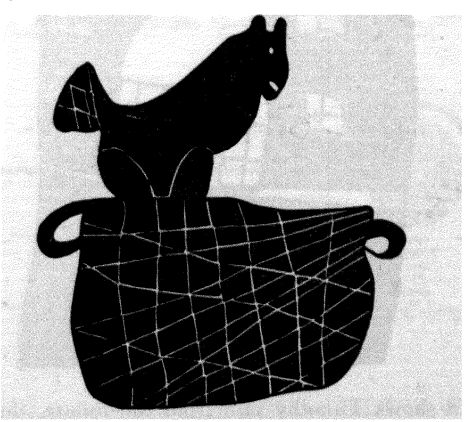

FIG. 5. Beverly's version.

Donald's sketch is interesting because it shows a two-story house, with door, doorknob, six windows, a roof, and a chimney. Like so many children's drawings, this house is transparent, so that Timothy and his mouse are visible within. The mouse, a blob of orange outlined with brown crayon, is on the first floor—or perhaps one might better say is plastered like a poster on the outer wall beside a window. Most of the space on the second floor is taken up by a large arched basket, so that the right-hand windows appear squeezed into place. The curved handle of the basket reaches nearly to the ceiling. Within the basket Timothy, in black outline, is presented comfortably asleep among some clothes.

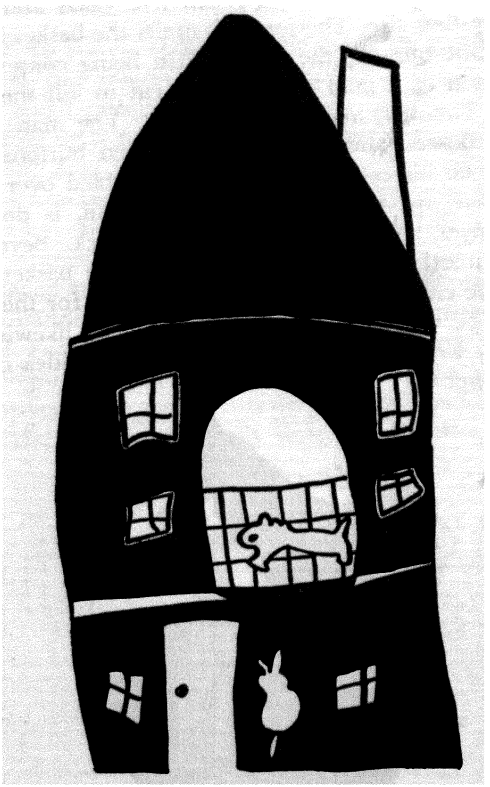

FIG. 6. Donald shows Timothy safe from the mouse, the former hidden in the basket on the second floor, the latter calmly sitting in the room below.

We shall refer again subsequently to various aspects of these kindergarten sketches.

Turning now to some sixth-grade drawings, we may note striking development in form and composition over the work of five-year-olds. Twenty sixth-graders, varying in age from eleven to thirteen, had, in connection with their study of drawing, taken a trip to the local art museum. On their return, they were eager to express their impressions in graphic form. Gloria, aged eleven, spent the work period sketching and coloring the bus that had taken the children from the school to the museum. She produced a bright orange vehicle, with black disk wheels, showing the driver and passengers, in blues, reds, and greens, sitting at the windows. Irregular horizontal black lines below the bus represent the paving of the street. Beyond are a curbing and sidewalk outlined in black. The background is composed of massed trees. The sky is pale blue, shot through with yellow lines of sunlight, and a large yellow setting sun, with its emanating rays, can be seen just sinking below the horizon of trees.

FIG. 7. Gloria's bus.

Interestingly enough, more than half the children were impressed most deeply with a huge image of Buddha, which they came upon in an archway of the museum. After they had returned from the

trip, several children made memory sketches of the god. Nancy, an eleven-year-old, produced the most elaborate Buddha of them all. Proportions, detail, and coloring are superb. She depicts the god as wearing a crown of fruit; the pomegranates, oranges, grapes, bananas, and pears, etc., are well conceived and executed, and their coloring is rather harmonious. Her Buddha, like the original image, has greatly elongated ear lobes. The blue eyes are only partially open; the brows have a truly oriental nasal dip, and the lashes are realistic. Face and ears are done in brown crayon, with black outlines.

FIG. 8. Nancy's Buddha.

Mary, aged eleven, produced a much less convincing portrait. Face and ears are done in dim yellow streaks, somewhat vertical, with intervening faint red vertical lines. The eyes are in pencil outline, with purple irises about dark pupil dots. Earrings in blue and green are suspended from the ears, and scrolls of blue hair cross the forehead beneath the crown. The two-part nose is merely a thin pencil line, with pencil dots for the orifices. The crown of the god appears to be somewhat tam-o'-shanter shape, and is decorated with green and blue jewels clustering symmetrically about a central larger medallion, topped by a bouquet of red matching jewels.

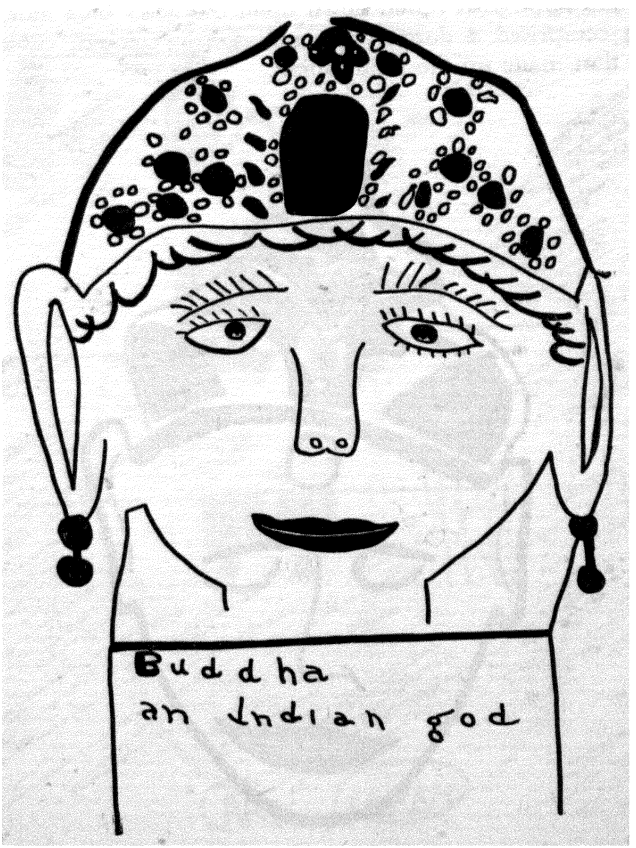

FIG. 9. Mary's Buddha.

Other children had their own peculiar slants, of course. Most of the Buddhas had bright yellow faces. All of them showed the half-closed eyes, but the color of the irises varied from a brownish orange through greens to blues and violets. The crowns were in some cases strictly conventional, usually with a red theme dotted with varicolored jewels and medallions. In some, they gave the appearance of colored ropes braided across the temples. In one, the crown resembled to some degree a visorless baseball cap, with its segments done in alternating colors. In another, the crown resembled a rimless tall hat, with futuristic designs and colors splashed symmetrically upon it. In another, the crown had a conventional shape as it rested down upon the god's blue hair, but its design comprised a dozen or more brightly colored, cubistic elements that made up the total mosaic.

FIG. 10. Paul's Buddha.

Several of the boys were intrigued by a picture entitled "The Card Player." Bill, twelve, made the best sketch. Two lanterns hang realistically from hooks behind a man who is playing solitaire at a table. He wears a cowboy hat of blue, with matching coat and trousers; four colored cards lie before him—yellow, black, red, and orange. A smoking cigarette is at his right on an ash tray. Two chairs in heavy black outline are visible opposite the player.

FIG. 11. Bill's card player.

Two other boys, Arthur and Raymond, aged thirteen each, reproduced the card player. Arthur's player sits, face-to, at a round table, on which are a beer bottle and an ash tray. He wears a boyish round felt hat and a pink-scrawled shirt, with brown cravat. Raymond varies the conception a bit by clothing his player in a bluish yellow coat and a broncho hat. At his right on the table lies a realistic revolver, ready at hand for any emergency, and at his left is a dagger shown thrust halfway through the table, evincing perhaps, something of our wild West moving picture mores.

Two girls, Phyllis, eleven, and Barbara, twelve, possibly interweaving their memories of "London Bridge Is Falling Down" with the scene, spent their work period drawing their versions of a painting of the famous old bridge that they saw at the museum. Barbara's is reproduced. The two abutments forming the three arches at the bottom rise sturdily from the greenish-blue water and support the superstructure against a background of smoking chimneys and obelisks. The entire scene is suffused with a dim, yellowish-gray haze, representing a London fog.

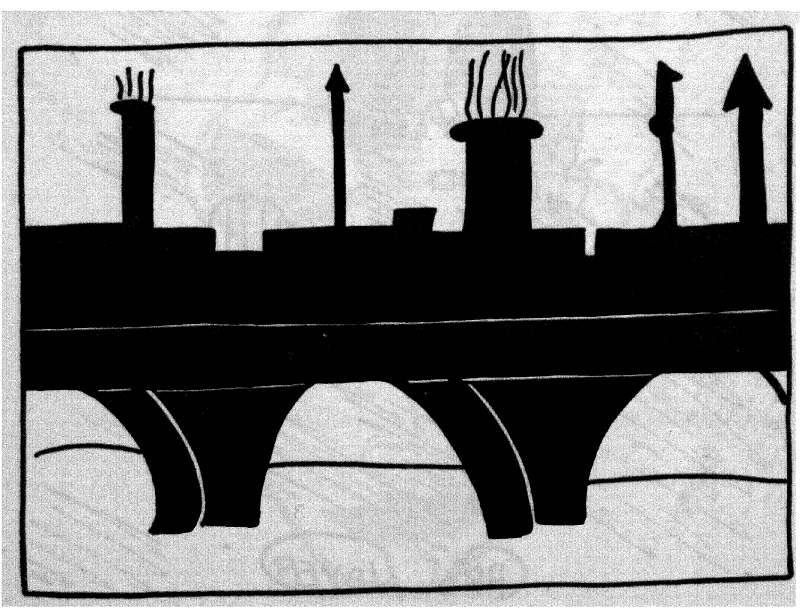

FIG. 12. London Bridge, done by Barbara.

Various other impressions fixed themselves so dramatically upon the minds of these sixth-graders that they spent a great deal of time subsequently in sketching them. We refer here to but two: Joan's sketch of a fountain playing in the rotunda of the museum; and Tom's sketch of the French Refectory. The fountain motif was a man astride a fish raised upon a pedestal above the water. The fish sent streams of water into the fountain. Joan has visualized the pedestal rather well, using black crayon to outline the edges and penciling the masonry lightly. The water issuing from the fish in blue jets is realistic. Unfortunately, those two parts of her drawing took up most of her paper. Only the black-trousered leg and brown foot of the man astride the fish are visible. An imaginative touch is to be seen in the crayfishes and starfishes swimming about in the water.

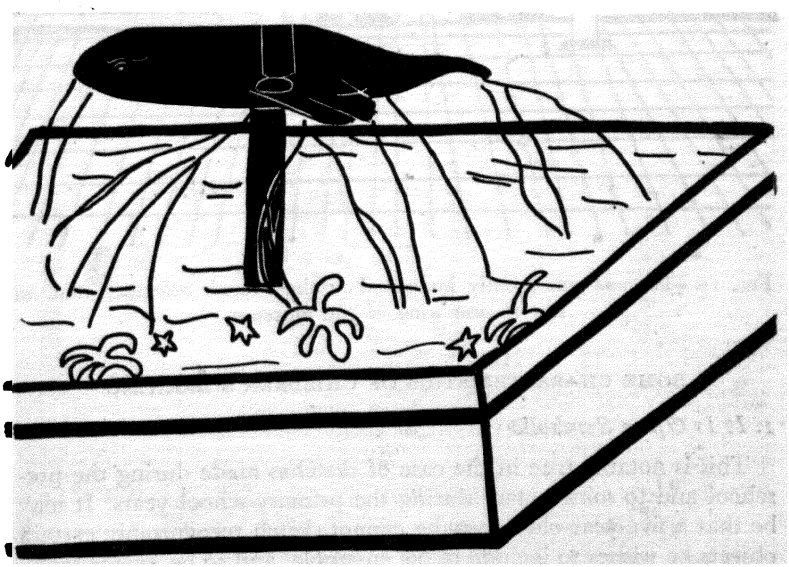

FIG. 13. Joan (11 yrs.) was impressed by the fountain that she saw spouting water in the rotunda of the museum.

Thomas, also eleven, has created an amazingly pleasing, formal sketch of the refectory he saw on the trip. The reddish-orange tiled floor is divided off geometrically into some two hundred or more separate tiles. The gray wall beyond the arches is also well bricked,

with the joints breaking properly. There is real grace to the four arches, resting pleasingly upon well-fashioned Ionic columns. The two niches in the wall and the medallion above the fireplace are in good harmony, and the fireplace itself is superb with its two projecting heads and its delicate brickwork.

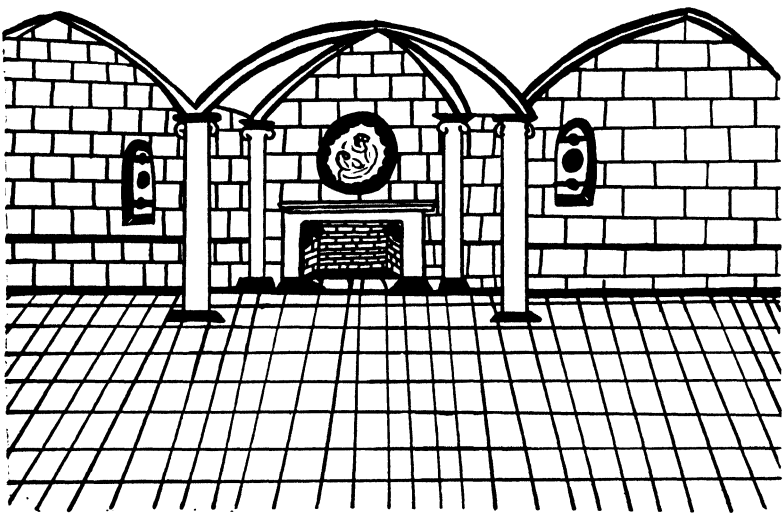

FIG. 14. Thomas was greatly interested in the French refectory that he saw in one wing of the museum.

SOME CHARACTERISTICS OF CHILDREN'S DRAWING

1. It Is Often Symbolic

This is notably true in the case of sketches made during the preschool and to some extent during the primary-school years. It may be that a five-year-old knows he cannot sketch recognizably certain objects he wishes to include in his ensemble, and so he avoids them. Or, and probably more likely, it may be that he is too absorbed with the inner feelings he is trying to express to bother too much about unimportant details. If he can show the theme in its total sweep, he will be content. And besides, he is not producing art for exhibition to a critical audience: rather, he is producing it to suit his own momentary fancy.

Be this all as it may, the sketchy symbolism in much of the draw-

ing of young children is quite obvious to one who studies what they have created. A line here suffices for a leg or an arm, or, with a few more lines leading diagonally from it, for a tree. In another setting, little corkscrewlike twists to the line symbolize smoke issuing from a chimney; given an arrowlike head, in still another setting, the line becomes a fish, swimming about in the water, or, curved to a point at the center, it becomes a bird flying in the sky. Similarly, a shapeless splash of color, or a fuzzy dot, may symbolize satisfactorily to the young creator a cloud, a valentine heart, a pool of water, the trunk of a man, or his head, or the dog that paces along behind him. Details such as these, to the very young artist, are of only trifling consequence.

2. Proportions and Perspectives Are Awry

Five- and six-year-old children are blissfully unconscious of the discrepancies in relative size and proportion among the objects they sketch in the same setting. Thus, a child may be taller and wider than a man, and both may tower above the peak of the roof of the house in which they are supposed to live; and if they were to attempt to enter that house through the door, as it is sketched, they would hardly be able to thrust an arm, and certainly not a foot, through it! Gail's sketch on the previous page illustrates this error in a five-year-old (five years, seven months). In the same drawing may be seen the child's failure to portray reasonable proportions of length of trunk to length of legs and arms and head. This is a very common fault in younger children's sketches of both the human figure and animals.

Distortions and angularities are also characteristic of early drawings of children. The body of a horse may be elongated grotesquely, and its legs and tail may hang off peglike from a rectangular rump or shoulder that has no similitude to the equine anatomy. A pipe stuck in the mouth of a man may be fully as long as his arms or legs. Gaunt chimneys may issue at perilous angles from the roofs of houses; and the black spirals of smoke trailing from them may dominate the entire horizon, and sometimes much of the foreground as well. Ears may project out at right angles to the face. Windows of houses may be larger than doors. Feet and legs may be bulky quadilaterals affixed, as if an afterthought, to the trunk. Coat buttons may be half as broad as the coat that bears them. The mouth of a man may be no more than a small dot or circle, or it may be a grinning aperture extending nearly from ear to ear

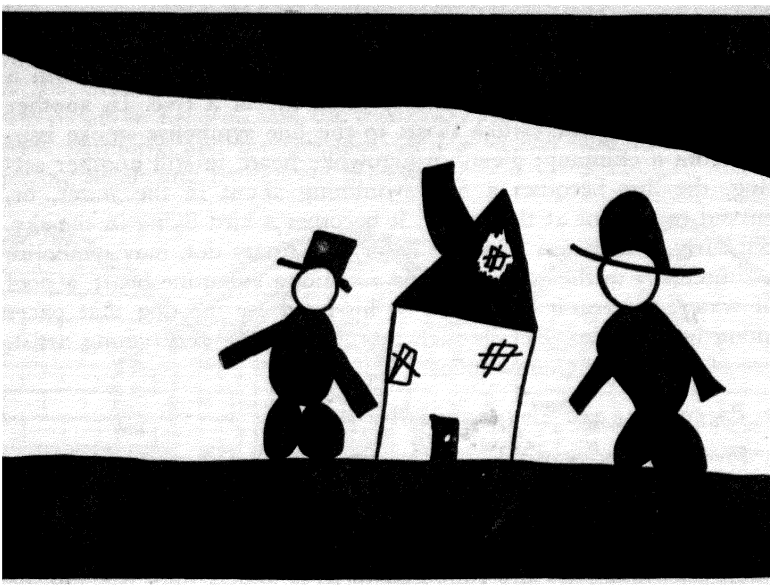

FIG. 15. Sketch by Gail (5 yrs., 7 mos.) illustrating several characteristics of early drawings.

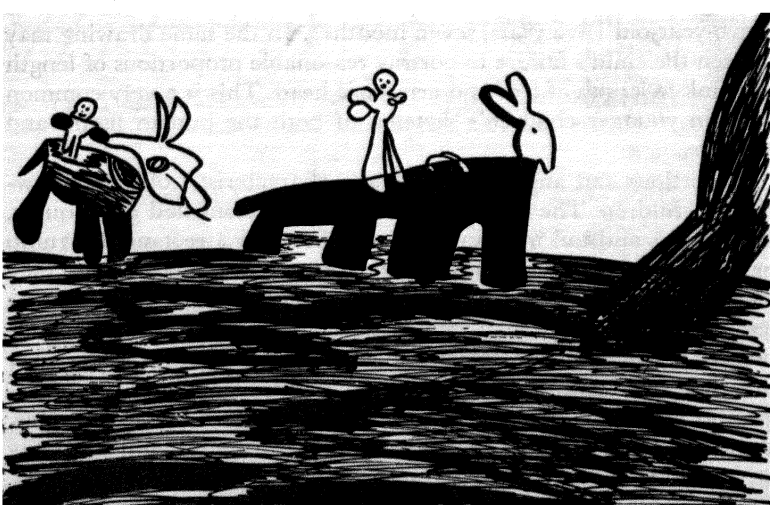

FIG. 16. Carl (6 yrs., 5 mos.) depicts two horseback riders.

and through which grotesque, horselike teeth protrude. A huge yellow sun, with spiderweb rays emanating from it, equipped with eyes, nose, and mouth like the man in the moon, and surrounded by a galaxy of scintillating stars, may look down upon a landscape of houses and people. A boyish skater with flying muffler, ear muffs and jaunty baseball cap may tower like a Brobdingnagian above

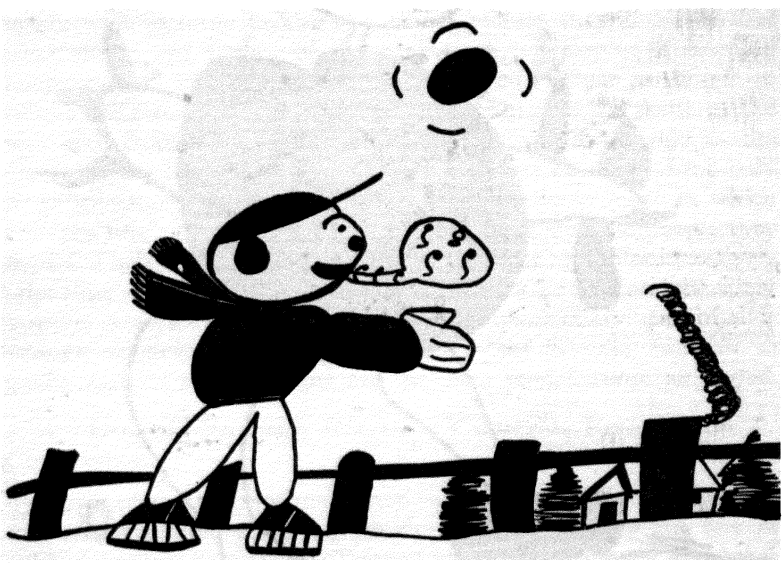

FIG. 17. Marlene (7 yrs.) draws a skater.

houses and horizons. A boy's legs and arms may resemble nothing so much as short links of sausages protruding from the body, and a beaver hat may be held up in the air by hair a good inch or more above the scalp. Truly, the world of five-, six-, and seven-year-old artists as they portray their impressions of it would out-Disney the fanciful creations of Walt Disney in his animated cartoons.

3. Glaring Omissions Occur

In the early artistic creations of children there may be observed frequent omissions of what would strike adults as essential details. An elaborate colored sketch of a man or a boy, for example, may have eyes that show colored irises, but may be quite without nose or mouth or ears. Legs may have no feet attached to them; arms

FIG. 18. Sketch of a man, as seen by Joan (5 yrs., 4 mos.).

may be handless; hands may be fingerless. Second-floor doors may have no steps by which to reach them, or no balcony onto which to open. A broncho rider may have no checkrein to control his steed, and the steed may have no bridle, bit, or saddle. Houses may have no windows, no doors. Heads may be hairless as billiard balls. Bodies may have no legs, no trunks, no arms.

Accentuations may also occur, as we have already seen. Such things as smoking chimneys; gaudily colored curtains in a window; a huge bleeding heart, splotched completely across a valentine;

green or purple hair that quilts over the scalp and projects outward and downward either in curls or ringlets, or as a solid mass of color; golden suns that hang hotly and glowingly in the sky; huge red stockings hanging in a fireplace; a house so checkered with windows that it appears more like a greenhouse than a home; luridly colored blossoms on trees and plants; carrings that all but trail along on the ground; curves of hills up and down which characters walk jauntily and easily; skates bulkier than the feet that wear them; red flames of consuming fire enveloping a burning house; massed pine trees with splashes of red in them as though to relieve the monotony; huge red apples, as thick as the trunk of the very tree from which they hang; doorknobs half as wide as the door; huge yellow snowflakes on a drab brown heath, lighted only by purple stars—these are illustrative of the sharp relief in which children love to accent certain phases of the scenes and people they depict. Their use of colored crayons is startling, but often strangely appealing and harmonious. To look through a few hundred spontaneous colored drawings of kindergarten-primary children is strongly suggestive of a sojourn among the Navajo Indians, so gaudy and yet so fascinating are the color combinations employed.

4. A Theme As Originally Conceived Undergoes Variation in Composition

This is one of the most naïve and intriguing features of children's art. A six-year-old starts out to draw a house, using his box of colored crayons as medium. Topped with a red chimney and black smoke, and equipped with windows and door, the house might be supposed to be finished. By no means, for a house starkly by itself is a lonely thing. So a path leading up to the doorway is added. A few flower pots along the side, with red tulips—or blue, or orange ones—are interpolated. A couple of children will give life to the scene, so they are promptly sketched in, and, for good measure, a dog or two, or a cat, or even a rabbit or a bear appear near by. Maybe a brown picket fence will be needed at one side, and if so, it proves inviting to two or three birds that promptly light upon it. If two birds have alighted, why shouldn't there be several others flying in the sky above? These, too, are added. The sky suggests a sun and some clouds, or maybe a rainbow. Paradoxically, a moon might add color to a sunlight scene, and equally paradoxically, some snow might be falling—on the bright tulips!

Or it may be definitely a winter scene that the child is depicting.

A snowman will dominate the setting, usually with either two or three superposed balls of snow to represent feet, body, and head, respectively. There will be a hat, bits of coal or sticks for eyes, nose, and mouth, and the chances are good that at least one child will be shown working upon the snowman. There will probably be a hill and at least one child coasting down it on a blue or green sled. On another hill a skier or two may be next added; next, a few gaunt trees in brown; then some white or glistening yellow snowflakes; then a skating pond, with several youngsters sporting upon it; somewhere in the distance a red or orange house is visible; and over it all an orange sun in the midst of murky clouds may flash its rays downward. Most primary and intermediate children in northern latitudes dearly love to sketch winter scenes, and often they include an amazing amount of detail.

5. It Expresses the Mood and Fancy of the Moment

Almost from the time when they are old enough to manipulate a pencil or crayon, most children take extreme pleasure in sketching. In the preschool years, their products include ordinary objects, such as a house, a man, children. These are ordinarily crude and smudgy, although an occasional child with real talent may produce a drawing that compares favorably with those done by average children four or five years older.

But it is after children go to kindergarten or first grade that interest in sketching has its heyday. Experiences they have on the way to and from school; trips they make to the cobbler's, the farm, the fire station; stories told; records played—these situations provide plenty of background for artistic expression. So, less formally, do the radio and movie scenes they absorb, and the common play activities in which they participate. These form a point of departure from which the imagination can easily project itself in any direction. Primary and intermediate teachers make frequent appeal to children's aesthetic urges by encouraging them to record their impressions graphically after they have gone through some particularly vivid or striking experience.

A sixth-grade class had greatly enjoyed the rhythm of Chopin's *Polonaise,* which the teacher had played them from a record. The children had been advised to watch for pictures they saw as they listened to the music. Almost before the phonograph was turned off, most of them were at work with crayon and pencil, sketching their feelings and the pictures that had come to their minds. The

best of all the drawings was done by Marcia, aged eleven. The charm and grace of the dancing figure are superb. The dancer wears a pale pink gown and has golden hair. The arrangement and composition of the palms and baubles amid which she dances are excellent.

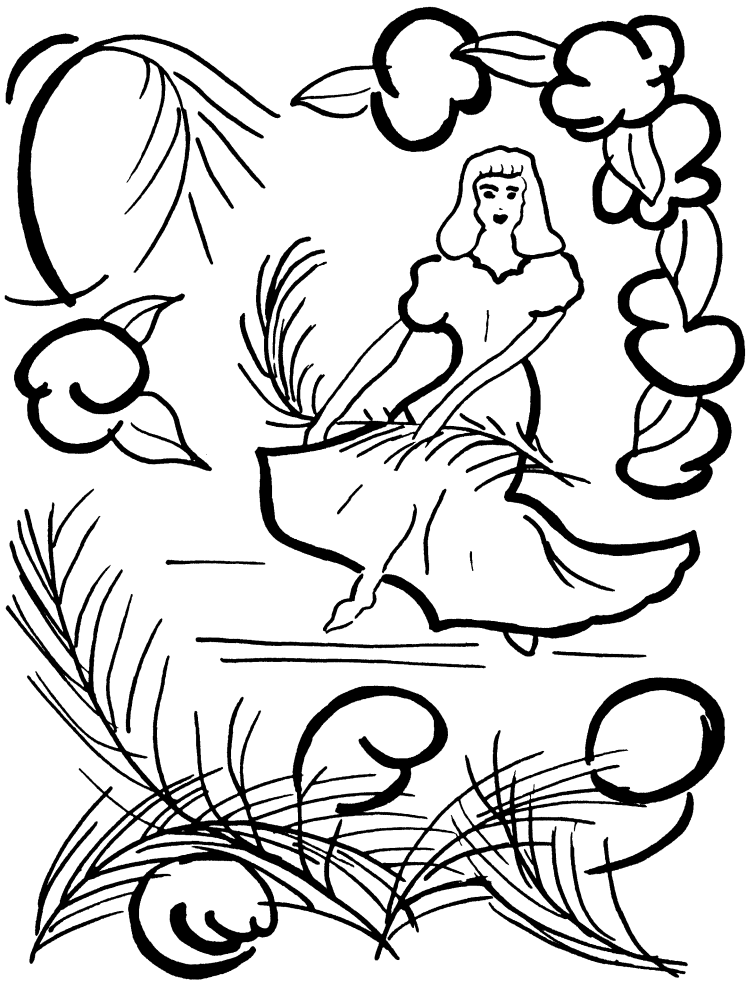

FIG. 19. Marcia sketches the scene she visualized while listening to a record playing Chopin's *Polonaise*.

Quite different, showing less fancy but still rather hauntingly beautiful, is the version drawn by Louise, aged twelve. Her singer wears a vermilion gown, with a faint brown cloak, and has the proverbial golden hair. A yellow moon floats across a blue sky beneath which the rim of the earth is penciled in brown outline.

FIG. 20. Louise reproduces her feelings while listening to the *Polonaise.*

Tschaikowski's *Waltz of the Flowers,* played in another sixth grade, following a similar suggestion from the teacher that it would be interesting to sketch whatever scene the *Waltz* aroused in her pupils' minds, yielded a number of unbelievably lovely sketches. The two best are reproduced. Alden, aged eleven, has pictured large, open-faced flowers with human eyes, eyebrows, and mouths at their centers, and surrounding petals in reds and purples and yellows and blues. The stem of each of the twelve flowers has been elongated into a body and bisected with legs and arms, suggesting rhythmic motion, as the waltz proceeds.

The scene depicted by Anne, aged twelve also, is romantically beautiful. On a pale green heath, beside a deep blue river winding across it, are five flower-couples waltzing, among smaller, un-

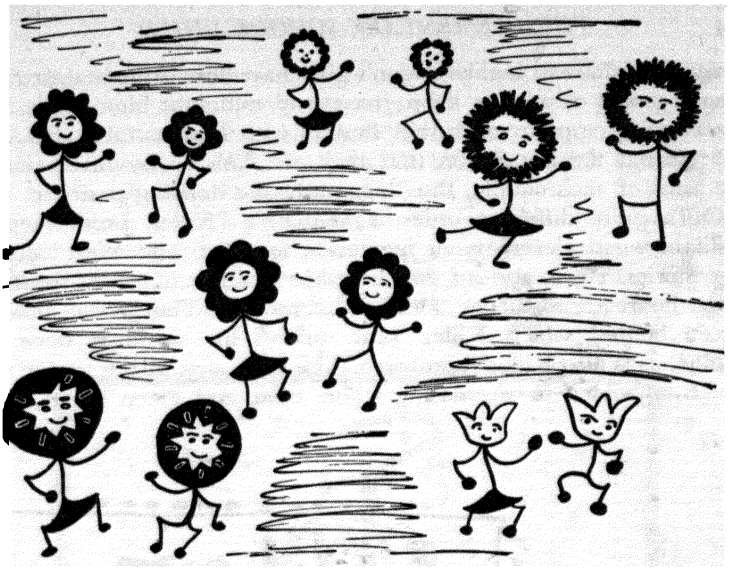

FIG. 21. Alden sketches a visual theme for *Waltz of the Flowers.*

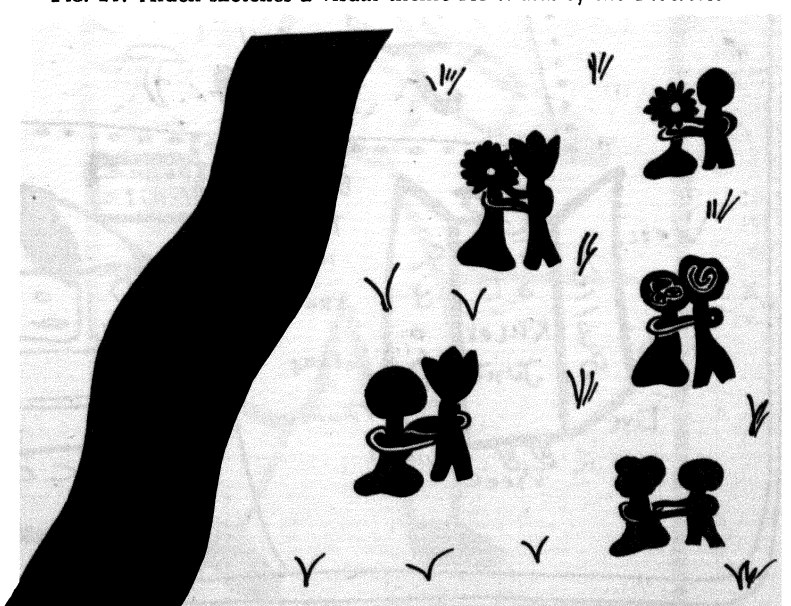

FIG. 22. Anne's waltzing couples, suggested by the *Waltz of the Flowers.*

personified flowers. Unlike Alden's girl characters, Anne's wear full-length gowns of orange, deep green, and midnight blue. Anne has made no attempt to equip her flowers with human faces, but she has created the impression that they are dancing by intertwining the arms of each couple, thus suggesting the dancing position.

Of a quite different order is William's "Killer Junt" sketch. William, aged eleven, is an inveterate lover of wild West adventure stories. He is also an indefatigable sketcher of every thrilling scene he reads about or sees in the movies. The "bullet-proof" screen behind which Killer Junt surveys his world is done in orange, as is also Killer's sombrero. The large sign at the top of the sketch is printed in alternating white, blue, and green letters, and

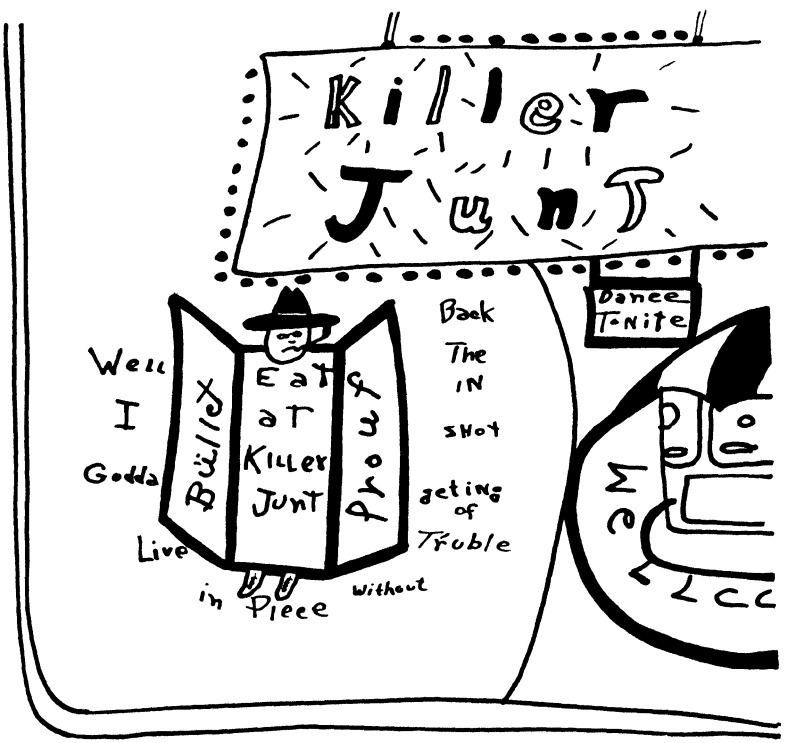

FIG. 23. William depicts a "wild West" motif, a theme with which he is more or less continually preoccupied.

surrounded on three sides by variegated electric lights. "Dance tonite" is done with heavy green border and light green center, with black lettering. The circular "Wellco[me]" rug on the floor of the restaurant is edged in deep blue, filled in with lighter blue and lettered likewise in black.

The athletic motif is prominent in the drawings of ten-year-olds. Richard spent a free period sketching a football player in action, supported by a juvenile rooter in the background. The athlete wears a bright yellow uniform, including yellow helmet and stock-

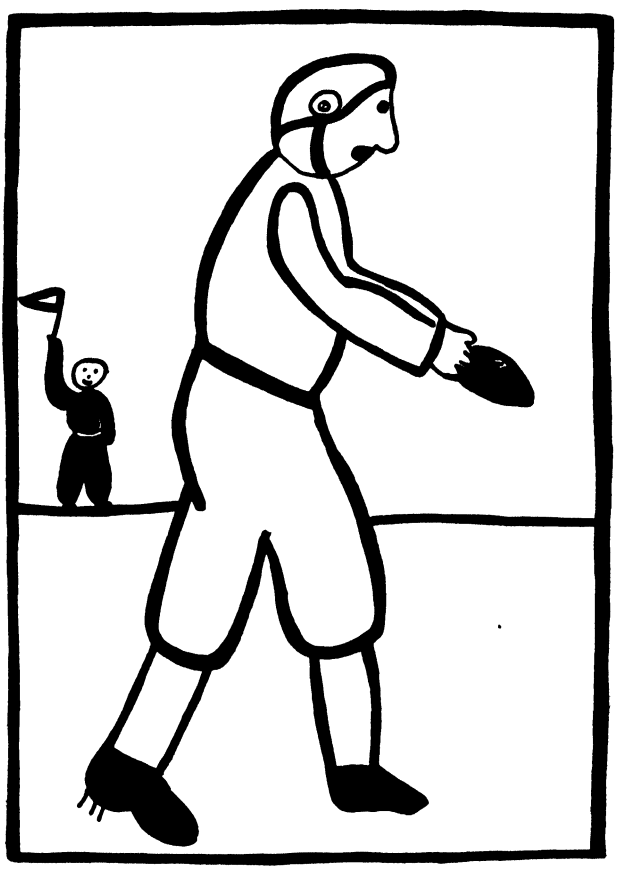

FIG. 24. Football player, by Richard (10 yrs.).

ings. Only a brown belt and brown shoes break the monotony of yellow. The player's uniform, face, and shoes are outlined in heavy black lines. The relative size of the football he is about to kick is unsatisfactory, but the player's position as he prepares to kick it is realistic. The young fan, with blue sweater, green shirt, and brown trousers, is waving a triangular red pennant. The field of action is green, surmounted by a heavy purple sky.

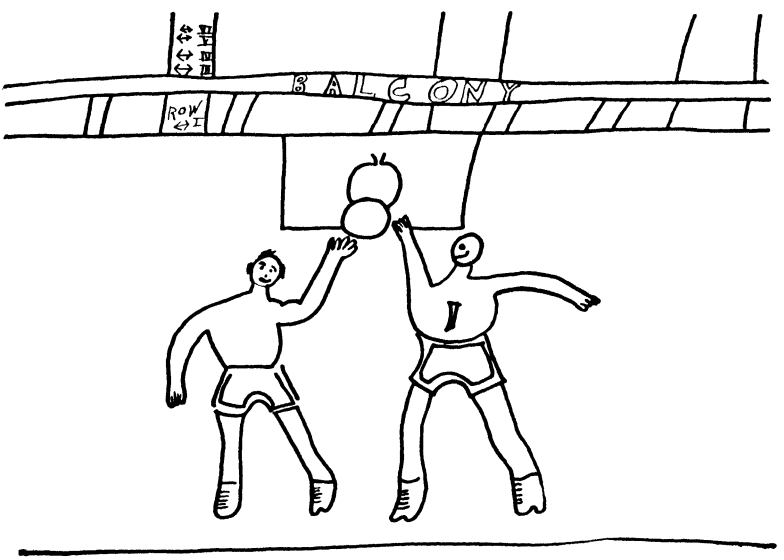

FIG. 25. Anthony (10 yrs.), ardent basketball fan, depicts his favorite sport.

Anthony, a lover of basketball, has reproduced a dramatic moment in his favorite game as the ball glides straight through the basket. Anthony uses color, but sketches his scene entirely in pencil. Each player wears realistic trunks and laced shoes, and his jersey bears his identifying number. Chest, head, and arms of No. 1 are much inferior to those of No. 7, giving an initial impression rather of the upper body of a gorilla than of a human being. A balcony, with numbered rows, is supplied as a sort of afterthought to give the impression of an indoor scene in the gymnasium.

Ada had recently read the story of Goldilocks and the three bears—somewhat belatedly, it would seem, for Ada is eleven years old, and in fifth grade. This circumstance accounts perhaps for the fine perspective and detail in the sketch. The bear mother, in a light red dress, sits on a yellow chair near a table, decorated also in yellow, with a flowered tablecloth. The little bear, in light red blouse and blue trousers, sprawls realistically on his little yellow

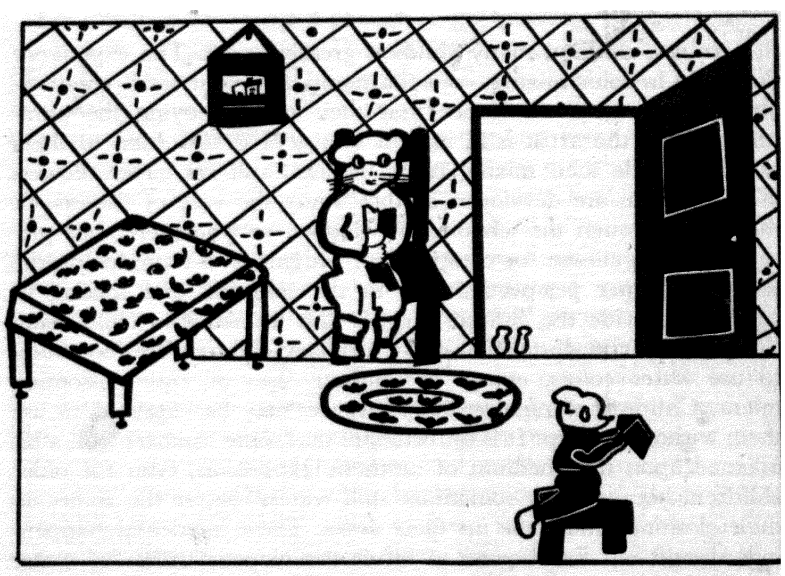

FIG. 26. Scene from Goldilocks and the three bears, by Ada.

bench and stares in consternation into his empty porridge bowl. A well-designed rug, done in greens and reds to match the tablecloth, lies on the floor. A picture with a yellow, red-roofed house hangs on the wall, which is papered with figured wallpaper in red and purple. The outside door is exceptionally well drawn. The table legs have casters, and the mother bear, judging from the way in which she clasps her apron, and from the roundness of her spectacled eyes, is very much disturbed at what has taken place in the bears' house while the family have been away.

OTHER MEDIA OF AESTHETIC EXPRESSION

By all odds, pencil and colored crayon are the most universal of all artistic media employed by elementary-school children. They are always at hand, immediately manipulable, and yield quick results. There are, however, other avenues and media through which the aesthetic feelings of children may also be expressed. We shall refer briefly to some of them.

1. Water Colors

Here is a medium many children greatly enjoy. The experience they gain in color mixing, color harmony, and contrast is considerable. The mere circumstance that they are employing the paraphernalia of the artist is in itself a source of gratification to them as they handle their mixing trays, brushes, and art paper. Powers of observation are developed as they study the vase of flowers, or the scene through the schoolroom window, or whatever other picture has been chosen for composition. Judgment in reproducing the scene in proper perspective and in the selection and mixing of colors to provide the desired effect is also trained in a child using this particular medium. Obviously, primary children are too young to use water colors, except in unusual cases of real blossoming talent. Children of nine or ten, however, may be expected to use them without mishap. It is unfortunate that some teachers look a bit askance upon this medium of aesthetic expression, even for older children, because they sometimes spill water, spatter the colors on their clothing, and mess up their desks. These incidental happenings should not be allowed to offset the obvious values of water colors for older children.

2. Clay, Plasticene, Soap

These media provide a challenge akin to real sculpturing and carving. They have an obvious advantage over sketching and painting, since they yield the third dimension. There is peculiar satisfaction for many children in creating a three-dimensional product, rather than a flat, two-dimensional one. Bulk and thickness are more suggestive of stability and tangibility than is mere flat extension. Kindergarten and primary children derive strong pleasure from modeling clay. From a practical standpoint, plastic materials have the advantage of being clean, cheap, and usable over and over again. Through them a child can model an Easter bunny and

eggs, a Christmas *crèche,* animals seen at the zoo or in the circus parade, the squirrel that scampers up the tree outside the window, the toad that lives in the dank border of the yard, and even gnomes and fairies. Soap carving is a little more difficult and requires somewhat more skill, but most children like to do it. Very good specimens of cats, dogs, elephants, and other domestic and wild animals may be produced at the intermediate level from soap.

3. Silhouettes and Cutouts

Long before they are old enough to go to school, children like to use scissors in cutout work. The children's page in the Sunday supplement and the pasteboard containers in which cereals and breakfast foods come, as well as various other advertising devices, capitalize this interest by providing intriguing colored sketches of dolls' dresses, animals, etc., for children to cut out and arrange and rearrange *ad lib.* Lacking these materials, preschool children will, as soon as they are old enough to be permitted to use scissors, spend many happy moments in cutting figures and designs from wrapping paper and newspapers. Often the cutting is purely random, without any particular objective; often, and increasingly so with the maturation that comes with primary-school attendance, it is definitely purposeful. Children six or seven years old like to cut free-hand figures of animals, people, houses, trees, flowers, and the like. If there is available a supply of black or colored paper, they will enjoy cutting out silhouettes and perhaps pasting them in groups or scenes against a white background. If dark paper is not available, they will derive quite as great satisfaction from cutting out white figures and coloring them with crayons. Subsequently, these may be kept in a portfolio, or they may be pasted on brown paper or thin cardboard or oak tag to depict some scene from a particularly intriguing story.

4. Crafts

Crafts provide a somewhat different type of aesthetic opportunity for children. After all, sketching, water colors, clay modeling, and cutout work produce nothing practical or utilitarian. With raffia, however, a child can make baskets; with rags and yarn, he can weave a rug or strip of carpeting; with hammer and saw and plane and sandpaper and glue, he can make a tabouret, or book ends, or a doorstop, or an end table; with cloth and pattern and needle, a girl can create a dress, or an apron, or a smock, or a

kimono; with yarn and knitting needles or a crochet hook, she can create fancywork, embroidery, and even a scarf or a sweater.

These products are all tangible and may be utilized in practical ways. They challenge the imagination and provide stimulation for the aesthetic in applied art. Schools and special classes for backward children have for a long time promoted the use of crafts of this sort, partly because of their possible prevocational reference, partly because their pupils are unable to proceed far in a conventional content curriculum. It has been the observation of the author in such classes that academically dull children often show a surprising amount of originality in their ability to build, weave, design clothing, do woodworking, etc. He has seen displayed in such classrooms models of transatlantic steamships and of giant bombers that were perfectly scaled and faultlessly constructed. He has seen also beautifully wrought lamp bases, sturdy dining chairs, filmy evening gowns, hooked and woven scatter rugs, embroidered shawls and tablecloths, and hosts of other artistic products of the fancy and skill of the more talented of special-class children. It is regrettable that crafts in the public school have been principally limited to sub-normal children. The practice common among many private schools of encouraging crafts and handwork deserves to be adopted widely in the public system.

5. Rhythmic Arts

Younger children dearly love rhythm games, marching, and folk dancing. Nothing is so likely to sweep a solitary or timid five-year-old into the activity of the kindergarten as is the spectacle of other children marching or dancing past. There is an irresistibility about rhythm that few children will long resist. Kindergarten-primary teachers commonly recognize two major aims in rhythmic activity. First of all, it provides their small children with plenty of opportunity to move about in an orderly manner and to exercise muscles that swiftly tire of sedentary tasks. Beyond the calisthenic aim, however, and more related to the development of an aesthetic appreciation, is the opportunity afforded the children to interpret through rhythm various impressions they are continually receiving from picture-study, from stories, from musical selections, or merely from watching the butterflies and birds flying about in the park.

One first-grade class that had listened to one of its members telling about how cloth was woven in her father's plant created spontaneously a dance of the weavers, in which each child imper-

sonated a flying shuttle that wove its way in and out across a loom. A second-grade class, remarking the rise and fall of the wind that blew strongly past the schoolroom windows one autumn afternoon, arranged, with the help of the teacher at the piano, a dance of the wind, in which the dancers now surged and skipped along with gusto, and now danced softly and lightly like leaping fawns.

There is no end to the imaginative experiences out of which this sort of artistry can be projected by the teacher of younger children. Study of pictures, especially those showing action; piano themes played by the teacher; records of some of the world's great composers; fairy tales and stories from children's literature; customs of other lands come upon in story and travel books; persisting impressions from visits to local industries and shrines; field trips; and all the incidental occurrences that dot the pathway of primary children—these provide a rich background against which they never tire of recasting their impressions in rhythmical form.

HOBBIES AS AESTHETIC OPPORTUNITIES

As children progress upward through the elementary grades, they commonly become interested in hobbies. Indeed, teachers are likely to encourage this form of activity because of its obvious educative as well as social value. It does not make any great difference what specific hobby a given child adopts, as long as he finds pleasure in it. Collections of one kind or another are probably the most universally followed of all hobbies during the years from nine to twelve, and once an ethusiast has fallen under the spell of collecting, his interest is likely to continue well into the high school years, and often beyond.

The aesthetic value of collections may be inherent in the nature of the items themselves, as, for example, pictures of flowers, birds, trees, etc. Or, and more likely, it will derive from the training the young collector receives in classifying and arranging artistically his particular units. Some juvenile collections of leaves, butterflies, moths, dried wild flowers, and even of pictures of baseball players and movie stars, that the author has seen, have been arranged as pleasingly as though they had been done by the most exacting artist. Coins and postage stamps may also provide a source of aesthetic expression in the care and meticulousness with which they are classified and exhibited. Supplementary study of the art motif in postage-stamp designs may sometimes lead a juvenile quester

far from his original interest in merely collecting stamps. Junior philatelists may also, in due time, be led into a study of a country's history, great men, stirring events, etc., as depicted on their postage stamps, in order better to understand the scenes and personages featured by various governments in this prominent way.

In constructional hobbies, as, for example, airplane modeling, building radio receiving sets, amateur carpentry and wood turning, and the like, aesthetic expression is also evidenced in the symmetry of parts, in the pleasingness of color and line, or in the all-over gracefulness and charm of the finished product. The same results come from activities like bead making and stringing, wax modeling, pottery making, the creation of tinfoil ornaments or artificial flowers, charcoal sketching, oil painting, wood carving, etc. Every medium of expression a child uses has in it an aesthetic value that should never be overlooked, and constantly improving form and technique ought to result from the continuing use of it.

THE FUNCTION OF THE TEACHER

Children, like everybody else, are easily discouraged by unfavorable criticism, especially if, day after day, it is heaped upon their efforts at self-expression. If a teacher is too exacting in her demands for perfection in any form of aesthetic creation, she will largely defeat the whole purpose of the program. Children are likely to be crude in their early art products, heavy and unsteady in line, poor in perspective, incongruous in relationship, unconventional in motif. The teacher will need to beware lest, in criticizing or disparaging the spontaneous aesthetic products of her children, she turn the young edge of their interest. She ought never to lose sight of the fact that these products represent the present conceptions of her children and afford them pleasurable means of objectifying both experience and fancy. Through manifested interest in their often crude efforts, through delicate suggestion, through unfailing encouragement, through frequent praise and commendation, it must be her function to stimulate every one of her pupils to externalize his inner world of ideas freely and often in the various media of aesthetic expression.

PERTINENT QUESTIONS FOR DISCUSSION

1. What sort of experiences do your children particularly utilize in their spontaneous sketching?

2. Is it in line with your experience that children enjoy sketching and coloring, but that they care little for the product itself after it is once finished?
3. Read or tell an appropriate story to your pupils and let them sketch afterward whatever impressed them. Collect and study the drawings.
4. Find from a set of your children's drawings examples of symbolism in the composition.
5. Similarly, select and bring to class for demonstration several good examples of faulty perspectives or proportions in the drawings of your pupils.
6. Do you find that, in spite of the luridness of color sometimes displayed in children's sketches, they often exhibit a strange harmoniousness not unlike that characteristic of primitive or savage art?
7. Select an individual sketch made by one of your children (spontaneously) and try to trace out its evolution from the first basal idea through the various stages of additions and afterthoughts that probably occurred as the artist developed his theme.
8. Arrange a trip to a museum, art gallery, or zoo, and upon your return ask the pupils to make sketches of any of the things they saw that particularly impressed them.
9. If your pupils have not been using modeling clay of any sort heretofore, procure a supply and note the interest they show in modeling with it. Are some of them immediately more realistic than others in their products?
10. Make a collection of silhouettes, cutouts, etc., done by children. What objects do they tend to select most commonly for cutouts?
11. If crafts are not a part of your school program, visit some special ungraded class for backward children and make a study of the work done by the pupils.
12. What are some of the hobbies practiced by individual children in your class? What effects do they have upon the pupils?

READING COURSE TO PARALLEL THE CHAPTER

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CHAPTER 10

MATURATION AND THE MOTIVATION OF LEARNING

Some Children To Identify in Your Room

A child who . . .

(1) exemplifies the proximo-distal order of muscular development;
(2) is maturationally unready for performance expected of him;
(3) because of maturation is as able as a trained child in some area;
(4) could profit more from a school program different from the actual one;
(5) exemplifies spontaneous motivation;
(6) objectifies his ego through vocalization;
(7) is strongly original, creative;
(8) shows skill in some form of manipulative performance;
(9) is strongly gregarious in nature, is solitary, non-gregarious;
(10) shows real intellectual curiosity;
(11) is a born show-off;
(12) is often at odds with his mates;
(13) has run away from home, or from school, repeatedly;
(14) is motivated by a strong interest or hobby;
(15) is exhilarated by success; one who is depressed by failure;
(16) shows good evidence of psychological weaning; one still unweaned;
(17) always looks for rewards; one satisfied to do right for right's sake.

GENERAL ORIENTATION

The human child is conspicuous among all living creatures in having an unusually long period of dependence before maturity is achieved. For a full year the infant is almost completely helpless in moving about freely from one point to another; for four or five years it must be sheltered by its parents and is quite helpless in a social situation. For fifteen or sixteen years a child is required by legislation in most communities to attend some sort of school. For an additional five or six years he is not recognized as a citizen capable of participating in public affairs.

By comparison, infancy in the animal is extremely short indeed. Most young animals, wild and domestic alike, run through the period of dependence upon the mother in a few weeks, at most; within a twelvemonth they are adult and ready—or will shortly be ready—to repeat the life history of the species.

Gua, the ape adopted into the Kellogg family, about which we presented some data in Chapter 7, typifies excellently this rapidity of maturation in the simian genus. In practically all areas Gua was found to have achieved, by the end of the nine months' experiment, complete and final maturation. She surpassed Donald so notably in most respects that his tardiness in maturing was thrown into striking relief. Research by other investigators, notably Gesell, Lashley, and Watson, has also boldly revealed the wide chasm between the slowly unfolding powers and capacities of the human child and the rapidly evolving ones of the young animal.

Gesell, for example, concludes [1] that the human infant cannot oppose thumb and fingers in the grasping act before the age of at least seven months, and often not before ten months of age. Lashley and Watson, on the other hand,[2] observe that a monkey opposes its thumb and fingers by the time it is five weeks old. A human child does not ordinarily raise its head and look about until it is three or four months old; a monkey can do this at the age of five days. A child does not master all the adult vocalizations until the second or third year; a monkey masters all its potential sounds within nine weeks. In these surprisingly contrasting figures one is struck forcibly with the speed with which an animal hastens through the stages of immaturity to an early adulthood, and with the extreme slowness with which a child follows the same path.

Undoubtedly civilization has operated to prolong the period of dependency in the child. In the primitive society of people living still in savagery or in low levels of culture, childhood is brief, and the coming of puberty heralds the achievement of complete adulthood in the tribe with all the duties and responsibilities that full tribal participation involves. In a society in which the mores and the heritage of the past are transmissible to the oncoming generation in simple ceremonial and totemic symbolism, about the only thing, of course, that delays full assumption of adult membership in the community is the matter of physical maturation; and that advances

[1] Gesell, *Infancy and human growth*, p. 345.

[2] K. S. Lashley and J. B. Watson, "Notes on the development of a young monkey," *Journal of animal behavior*, III (1913), 114.

rapidly enough so that within twelve or fifteen years the savage child becomes a savage adult.

In civilized society, physical maturation is but one phase of the total pattern of achieved adulthood. Our western mores and institutions, built up as they have been by succeeding ages of culture superimposed upon preceding ones, are extremely complex—so much so, indeed, that society provides schools and charges them with the tremendous responsibility of introducing each new individual to the heritage of the past and to the panorama of the present. Our technological achievements are so many-sided and complex that years have to be devoted to preparing the individual for intelligent and productive living in a machine age. There is nothing in the background of primitive peoples—either social or technological—that approaches even remotely the ramifications and the intricacies of western culture. Twenty years, or nearly a third of the entire life expectancy of the individual, hardly suffice to prepare him for adult living in a world as complex as ours.

THE ORDER OF NEURO-MUSCULAR DEVELOPMENT

At the outset of his life, the child reacts *in toto,* i.e., his entire neuro-muscular system tends to be in explosion whenever he is actively expressing himself. This tendency to mass response is to be seen in the gross physical activity of squirming and tossing about as he lies on his mattress. Arms and legs and back and torso muscles react indiscriminately as he lolls and hitches about. It is seen also in the undifferentiated vocal babbling that precedes by many a month the production of specific and smooth speech. It is seen likewise in the grotesque figure he makes when, at around one year of age, he raises himself tremblingly upon his feet and thrusts himself forward in his first step. It is seen in the mass flexion of his hands before he can single out his fingers and thumbs and operate them prehensilely; in the thrust of his forearms down upon a piano keyboard before he can depress individual keys; in the top-heavy swaying of his body before he can balance it nicely on the balls of his feet.

Individuated activity, in other words, must wait upon earlier mass activity of larger muscles or of small muscles in larger sweep. Development takes place first along the upper axis of the body, permitting the raising of the head and the thrusting out of the arms and legs; only gradually does it proceed outward from the

axis to the hands and fingers, the toes and feet. Agility and gracefulness, which arise out of small muscle control and coordination integrated with large muscles, mark the older child, not the younger. Nature will not be hurried in this cephalo-caudal, proximo-distal order of muscular development from the general to the specific. The degree of a child's maturation determines at any given time and in any given activity the effectiveness and the skill with which he will meet the situation confronting him.

FUTILITY OF TRAINING BEYOND STAGE OF MATURATION ATTAINED

Attempts to accelerate the natural maturation of a young child will often yield only the barest returns, if any. Thus, parents will exert a deal of persistent effort in the early months of the baby's life to tease from its unready if not unwilling vocal chords the magical words "Da-da" or "Ma-ma," and when their patient efforts are rewarded, the result can be interpreted by nobody but themselves as meaning what their delighted sensibilities label it to mean. Similarly, and at an earlier stage, they will be observed often teasing and coaxing and cajoling the baby to smile back at them, or actually to laugh aloud. These events in the unfolding life of the young child rarely occur as early as their parents would wish, and when they do make their appearance they bear only the faintest semblance to the perfect pattern. Undoubtedly, the persistent imitative encouragement supplied by the parents keeps the infant on the *qui vive* to reward them as soon as he can, and, while he cannot be hurried beyond the degree of his maturation, without such patient coaxing it is possible that there would be considerable longer delay before he could talk and laugh.

Parents and teachers alike can expect children to be eager to learn, for indeed they are. Adult mentors must realize, on the other hand, that there are definite limitations set by maturation within which, and within which only, potential responses can be made. This fact is true at any level of child development, from the earliest weeks up to the attainment of neuromuscular maturity. Whatever learning a child is subjected to will, therefore, need to be adapted to his capacities. A six-month-old baby cannot climb a flight of stairs, any more than a two-year-old can walk a tightrope, or a four-year-old can conduct an orchestra. The reasonable fitting of an educational program to the evolving maturational stage of each child sitting under it becomes a most discriminating problem for teachers and educational administrators.

Exactly how maturation and learning are mutually entwined and interdependent cannot be stated. The obvious contribution to learning that growth and the inner impulsions it releases make, however, is unquestioned. Having reached a given stage of growth or maturation, the child learns actively certain things; having actively learned, he demonstrates thereby that he has reached such a developmental stage. Child psychologists and experimentalists have used the ingenious device of controlled environment to attempt to fathom this mystery of growth as the stimulus to learning, or of training in advance of growth as a substitute for growth. The question at issue in their experiments has been: To what extent may skills or abilities built in by training over a period of time in one child be superior to identical skills or abilities that another and untrained child of the same original status will manifest when tested at the end of that time. In other words, will the very circumstance that a child has lived six months afford him the necessary maturation, neuromuscularly, to perform with little or no specific practice specialized skills or achievements quite as well as he would be able to do had he been trained specifically in them during the six months? By using as subjects a pair of twins, one of whom undergoes training over a period of time, the other of whom is deprived of such specific training, researchers have been able to throw interesting light upon this whole problem. Unfortunately, most of these studies have been carried on with very young preschool children, so that their implications for education at the elementary-school level are not always reliable. They are significant enough, however, to merit a brief discussion here.

EXPERIMENTAL DATA

Dennis, in one of the most ambitious of these controlled environment studies, used two girls as subjects and conducted the experiment over a period of seven months, from the time of birth. During the entire period each infant was kept to herself in an individual enclosure, without toys or visitors. Nobody played with them, smiled at them, punished or rewarded them, gave them any show of affection, propped them up to an exploratory sitting position. Despite the sharply restricted environment in which they thus passed seven months, they were found to be approximately up to the norm for seven-month-old babies in ability to raise their heads and chests, to follow with their eyes moving objects, to make hand-

to-mouth movements, and the like. When the experiment was concluded, while they were a bit laggard in creeping and in standing, with or without help, their backwardness in these skills was of no particular significance. The general conclusion was that, far from being at the mercy of a stimulating and encouraging environment, the baby is part of a universal pattern of growth that will follow itself through surprisingly without external manipulation.

Numerous other experiments, using the co-twin or other type of control method, have been conducted with reference to the interesting question of whether and to what extent a brief period of training at a later time will result in as great gain as would have resulted if the practice period had occurred earlier. This is obviously a way to measure the role played by maturation, for if early training does not advance a child in a given skill or function well beyond the point another child reaches in due course of equivalent time, the conclusion is inescapable that time spent in early practice is largely wasted and that the child would be better off passing the time in general play or other untutored activity.

The following table lists several of the more significant studies made in this area of child psychology :

Investigators	*Function investigated*	*Approximate age of children*	*Length of training*
Gesell, A. and Thompson, H.	Stair climbing	46 weeks	6 weeks
Gates	Tapping	4–6 years	6 months
Benezet	Arithmetic	6th grade	5 grades
Hilgard	Buttoning Cutting Climbing	28 months	12 weeks
Jersild and Bienstock	Keeping time to music	6th grade	1 year
Pistor	Time concepts in history	6th grade	1 year
Strayer	Naming objects and using words	84 weeks	5 weeks
McGraw	Various functions	Birth to 2 years	2 years

The technique followed in control experiments such as those mentioned above has to be a rigid one. Some initial practice and testing are provided to both the experimental and the control groups at the start of the study, in order to establish the degree of ability of each child at the outset. There follows a considerable period of time during which the experimental group is trained by the investigator in some particular skill or function, e.g., climbing stairs, while the control children are kept completely away from stair climbing. Subsequent to training, the practice group and the control group are again tested in the same function or skill. In many of the experiments, a brief bit of intensive training is given at the end to the control group to determine whether, if it does not already equal the ability of the practice group, it can achieve the latter's level very quickly, due to general maturation.

In the first experiment mentioned, that by Gesell and Thompson, the control twin was about as able at fifty-two weeks to climb the stairs as was the practiced twin who had been trained for six weeks to do so. Gates, working with four- to six-year-old children, concluded that, while six months of training of the practice group found them superior to the control group in tapping, the latter very shortly overtook them. Benezet delayed the study of many of the formal operations of arithmetic until the sixth and seventh grades, by which time, he concluded, the unpracticed children became speedily as adept in the delayed processes as were the practiced children who had followed the conventional arithmetic curriculum through the grades; in addition, the controls had the advantage of having achieved many other attainments by virtue of the time they had saved in arithmetic. Pistor, using historical time concepts and chronology as material, trained his practice group throughout the sixth grade, but found that by the beginning of the seventh grade the control children who had had no formal historical training in the sixth grade did not suffer appreciably in their general grasp, and that they had made as large gain on the tests applied as did the practice children. Hilgard trained one group of two-year-olds to button buttons into buttonholes and to cut with scissors; at the end of twelve weeks the control children, who had been denied these types of activity, were far below when tested, but after a single week's instruction they achieved approximately the same degree of skill shown by the others. Strayer kept one twin (eighty-four weeks old) for five weeks in a "silent," non-verbal environment, drilling the co-twin in naming objects and using words.

In later training of both twins in verbal usage, the control child speedily began to reduce the difference in linguistic skill between herself and her sister. McGraw, in an ambitious study of twins over a two-year period, found some evidence, particularly in riding a tricycle, that delay in training resulted in more speedy acquisition of skill.

Summarizing the evidence from these and other experiments, one arrives at the inescapable conclusion that two often indistinguishable factors are at work during the developmental years of childhood: maturation and learning. Learning itself cannot take place economically until structure is adequate to support it; when structure is adequate, progress in learning greatly exceeds "hothouse" forcing of learning before the organism is ripe for it.

While this principle is fairly obvious so far as physical and motor skills and achievements are concerned, it is less commonly perceived when it comes to ideational or academic learning. It is reasonable to ask whether some of the time usually devoted to the mastery of abstract information in the elementary schools might not better be devoted to the building of a rich and wide range of sensori-motor and vocal or musical or rhythmical skills. Certainly the primary child has unlimited potentialities along these lines, the depths of which have not been plumbed by educators. It is reasonable to ask, also, whether some, at least, of the content of the formal curricular subjects is not well beyond the present ability of the learner to assimilate economically, and whether much time could not be saved by delaying some of it until the child is ready for it. In any case, a fundamental principle is here involved; it is uneconomical to attempt to train a child in any direction unless and until his stage of maturation is such that he can respond successfully and satisfyingly. Nursery-school and kindergarten teachers have largely accepted the operation of this principle, and proceed accordingly with their children. In the grades, however, and notably beyond the primary ones, less attention is paid to it. It is conceivable that our entire system of elementary education could be drastically revised along the lines suggested by these experiments in control training with comparable beneficial results.

MOTIVATION OF LEARNING

In addition to having arrived at the proper maturational stage for undertaking a given kind of learning, a child must also be ade-

quately motivated. Here is one of the central problems in child psychology: how to set the learning stage in such a way that the child actor will play his role of learner in a dramatic and consuming way. To answer this question, it is important for teachers to understand something of the nature of the drives that activate children, and from which their spontaneous activity is projected. Only as teachers can go along with these natural impulsions and relate them to the materials and programs of learning will they ever succeed in vitalizing and energizing the schoolroom processes.

The energy and effort that the preschool child will put into spontaneous activities during a thirty-minute period of observation are highly suggestive of what results might be achieved with school-age children in a schoolroom setting if equal abandon were manifested by them in their formal learning experience.

During such a half-hour period, under which Betty was under observation, the child, just turned four years of age, talked, ran about, and manipulated constantly. The basal theme at the start was the story of Goldilocks and the Three Bears, which Betty rehearsed in free rendering, accompanied by constantly changing facial expressions as the events of the story succeeded one another, and by the swinging of her arms and the raising and lowering of her voice. She was herself, evidently, Goldilocks in effect, and as she rehearsed the story she sat down, got up, sat down again, "tasted" the bowls of porridge, lay on the divan, and then, at the proper moment, ran excitedly away to a far corner of the room to escape the bears. The ringing of the telephone on the stand broke in upon the finale of the story, and across the room Betty ran, calling out: "I ans'er it, mummy!" Removing the receiver, she called: "Arloo! This is Betty. Do you want my mummy or my daddy?" While her father was telephoning, Betty dropped to the floor to stroke and worry her rather sleepy dog. Finding the dog unresponsive, Betty jumped up and ran to her aunt to play "patty-cake" with her. In the middle of "patty-cake" she remembered her new jaunty little hat, and off she was to fetch it. In a low mirror she regarded herself pleasurably in the hat for a moment; then she ran off to the next room to find her picture-book, returning immediately and ensconsing herself on the divan beside her mother, where she proceeded to "read" the story of the Three Billy-Goats-Gruff, modulating her voice progressively to the voices of Big Billy-Goat-Gruff, Middle-Sized-Billy-Goat-Gruff and Little-Wee-Billy-Goat-Gruff, and whirling off in a wind of laughter at the conclusion of the story. To the window then, to see if Jane was out in her yard; to a candy-box on the sideboard, to calculate how much was

left in it and—hopefully—to be invited by her mother to have a piece for herself. The permission not being forthcoming, Betty took down the box and passed to and fro among the members and the guests, offering each a sweet, and was finally rewarded by the coveted permission to "take just one piece, and no more!"

This picture of breathless, eager, active animation presented by four-year-old Betty is like millions of other pictures of other Bettys whose energy and interest and creativeness know no end nor tiring. If only teachers could tap this inexhaustible storehouse of juvenile drive and purpose, and could turn its floods into the sluices of education, there would be no limits to what might be achieved in the schoolroom.

Apart from the universal instinctive drive in everybody to escape from pain and discomfort and to achieve comfort and freedom from pain, mankind is dominated, as we have seen, by a single strong, burning, and dynamic purpose: to express himself and his personality. This urge to self-expression, this ego-projection, is just as much an aspect of the instinctive equipment of the race as is the urge to escape pain and to achieve happiness. Some psychologists still are of the opinion that there are many distinct and separate instinctive drives; the assumption is superfluous. What so many of them deem to be instincts are only available channels through which the dominating urge for ego-projection can eventuate in satisfaction. We shall distinguish here twelve different avenues of expression of the ego-projective instinct.

1. Vocalization

From the earliest months of his life, as we have already noted previously (see Chapter 7), the child keeps his vocal apparatus in more or less continual operation. From the early gurgling and babbling and gutturalizing to the later mastery of recognizable speech, he is constantly struggling to project himself upon his surroundings. Through the medium of vocalization he can not only make known his wants and needs but he can also project himself upon the people and the things that surround him. This avenue of linguistic self-expression grows broader and more delectable as he proceeds upon it. He delights in his new-found power to find self-realization vocally. He yells and shouts and yodels and sings and whistles his way through the years of childhood. He orates and declaims vociferously; he rolls his tongue glibly and limberly around delicious alliteratives and lugubrious jawbreakers. He origi-

nates or adopts secret languages, "pig-Latin" phrases, and mystifying alphabets. He revels in conundrums and riddles and acrostics, in jingles and rhymes and repetitive meters. He engages in incessant chattering, gossiping, conversing. Through these means he seeks constantly to impress himself and his prowess and his ingenuity upon other personalities with whom his own is coming continually in contact and by whom his is being judged and evaluated. This motivating force that prompts children of all ages to project themselves upon their environment through the rich and variegated medium of vocalization constitutes one of the most notable aspects of the self-projection urge.

2. Play

Play, as we saw in Chapter 5, is a universal response. As an avenue of ego-projection it is particularly interesting, since in its social setting it provides abundant opportunity for the child to match his wits and his prowess and his abilities and his skills with those of other competing children. Through play he is able to show both to himself and to others the fleetness of his feet, or the agility of his muscles, or the resourcefulness of his ideas, or the cleverness of his brain. The degree of ego-satisfaction that a boy experiences from the demonstrable superiority of his moves, or at least from his competitive association with other players, even though he may not surpass or even equal their prowess, is unquestionably profound. The very circumstance that he is merrily associating with others, that his voice is mingled with theirs as they whirl and dart across the playground, that he is one in a juvenile *camaraderie,* that he is an integral part of the Court of Boyville with its intriguing give-and-take at his level of evolution, is satisfying in the fullest sense, is perhaps the *sine qua non* of juvenile contentment and satisfaction.

3. Creativeness

Judged by adult standards, the crude and shapeless sailboat whittled with a boy's jackknife from a block of pine may be clumsy indeed. So may the doll's dress cut out raggedly and sewed in big, irregular stitches; or the poorly balanced childish sketch of a house and a man, without perspective and proportion; or yet the lopsided, matted May basket stuck together by eager but unskilled fingers. These products, however, crude as they may appear, represent a child's efforts to express himself and to project his personality upon others through the intriguing channels of creation. It is the

same motive that lies behind the achieving, at a later stage, of a canvas to be exhibited in the art show, a novel that may win acclaim as a best seller, or a building of striking design. Through his potential role of creator every child is father to every man; through the conceptions of his mind, objectified by his hands or his voice, every normal individual assays ego-projection for himself. Through the attention his creation commands among his fellows, he receives reflexly the glow of satisfaction and pleasure that warms him to make further efforts to objectify himself. Creativeness in childhood, while it may lack the fanfare and acclaim and social importance of adult creativeness, is every whit as sweet and intriguing to the juvenile mind and ego. One has but to observe the pride—sometimes modest, sometimes flagrant—with which the child creator parades the results of his efforts for all to see and remark in order to appreciate how valuable to the achievement of self-expression and recognized status is the avenue of creativeness.

4. Manipulative Behavior

Of like origin is the manipulative behavior of the child. In the early months of life, the baby is greatly intrigued by the information he gleans through his fingers and palms. At first, before he is old enough to grasp or "handle" an object, he clasps and unclasps his hands, spreads his fingers, clenches his fists, pokes at anything and everything within range. Later on, as maturation makes it possible, he sweeps into his hand whatever small objects may be within reach. Given a block, he fingers it and rolls it about. Later still, he explores manually his ever-widening environment, deriving information and satisfaction from the mere handling and "feel" of objects. Most boys pass through a jackknife stage, in which they whittle incessantly, fashioning darts, arrows, whistles, toys, or else just whittling for the manual joy of it.

A child achieves self-expression manipulatively in hosts of ways, depending upon the environment and what it has to offer. He may develop considerable skill in the handling of tools; he may spend many hours dismantling his bicycle, for no other reason than to put it all back together again; he may develop invincible skill in manipulating a mechanical ballplayer, operating a telegraph key, hitting a target; he may acquire such finesse in lassoing, keeping three balls in the air simultaneously, and twirling a baton, that his mates will applaud loudly. Deftness in the manipulation of mechanical puzzles; in making and "taking off" the cat's cradle, and in the

doing of other tricks with twine; in throwing jack stones, aiming a croquet ball, pitching a "curve"; in skipping stones across an expanse of water, paddling a canoe, catching and throwing a ball, cutting or sawing to a line; in throwing beanbags, playing tenpins, putting together picture puzzles—all this is basally manipulative, although of course the competitive angle may also be operating. Lacking these forms of activity, what boy will not express his ego, on occasion, manipulatively by swinging a stick idly as he walks, or by drawing it across the pickets of a fence as he passes, or by balancing it nicely on uplifted finger or outstretched palm? If we add to such activities as these the more distinctly girlish ones of crocheting and knitting and embroidering, of shaping and smoothing and patting and curling, of stringing and plaiting and plucking and arranging, we shall have a fair inventory of the manual dexterities that children of school age commonly exhibit.

5. Possessiveness

Ownership is one of the strongest ways through which people express their egos. Obviously, if a person has achieved something tangible in the way of possessions, he must have invested his skill or his creativeness or his intelligence in order to get it. So many things owned mean so much successful expenditure of one's gifts or abilities. It does not matter greatly whether the individual has ten thousand dollars in the bank, or a tricycle in the playroom: his property is *his,* by right of ownership; it represents both his personal ability (or his father's) to earn something desirable and an avenue through which he may continue to make his personality felt in the group of which he is a part.

Children early get into vigorous disputes about ownership. "It's mine!" appears long before "It's yours." Even children in the same family commonly spend much time trying to establish title to their toys and playthings, and parents are frequently called upon to emphasize the importance of sharing and of generosity. Even so, children long for things of their own. They will often save their money, denying themselves the immediate satisfaction of sweets, etc., in order to buy later the thing that they especially wish to have. Learning to save, to postpone the gratification of possessing little today for the greater satisfaction of possessing much tomorrow, may thus become strongly motivated. This is an excellent trait in human character, and upon it depends much of the stability of our society. Many of the possessions of children, of course, do not

come this hard way. They are birthday presents, Christmas presents, ordinary gifts of parents and relatives and friends, rewards for good conduct, and the like. Regardless of their origin, objects possessed by children sometimes provide them not only with a source of continuing joy and satisfaction, but also with motives for acquiring more and better possessions, as well as with the opportunity of learning to care for them, to use them carefully, and to share them with others.

6. Gregariousness

Another strongly motivating force in juvenile society is gregariousness. As we have observed in previous chapters, most children thrive on mutual social contacts. The presence of a group provides the setting in which an individual child may express his ego, demonstrate his abilities and prowess, show his leadership, experience the supreme joys of juvenile social intercourse. A child's gang or set is his opportunity, his marketplace, his forum, his shrine. Within its bosom he can display himself and express himself as in no other place. It provides a challenge for all his skills, all his ingenuity, all his resourcefulness. Like the adult in his club or fraternal organization, the boy in his feels a security and an importance that make for immense inner satisfaction. Though he could not express his sentiment in words, any more perhaps than his adult prototype could do, he feels it powerfully. Teachers can count upon the naturally gregarious natures of children in the working out of their units of learning and in the general manipulation of the learning stage.

7. Mastery

Here is an avenue of self-projection that has likewise large possibilities. There is nothing more flattering perhaps than to master a situation, or to achieve domination over something or somebody. Watch the pride of a boy, for example, who has mastered the art of walking a tightrope and who in perfect balance and poise edges his way along its unsteady length. Note the same sort of pride a child will show who can stop a "grounder," juggle two balls at the same time, make a coin "disappear," say the magical words that will induce his dog to stretch out on the walk a "dead dog," skate backward as well as forward, beat his chum at croquet, or "throw" him in a wrestle. In all these situations, a boy has mastered something, has learned to make the world dance momentarily to his

music. The achievement of dominance may and often is preceded by many days and months of practice and hard work, punctuated at frequent intervals by failure and bungling. Through it all, however, the goal is constant and intriguing.

There is unquestionably a longing in every individual—juvenile and adult alike—to be able to project himself triumphantly upon his environment and his fellows, at least in some area of achievement. Children need greatly to be helped to achieve this mastery. There is in their daily lives in and out of school so much that is lock-step, humdrum, and commonplace, that this deep-seated thirst for mastery or domination may receive too little satisfaction. Parents and teachers ought to encourage and help each child to win distinction in some specific kind of performance. The satisfaction to the ego afforded by a consciousness of such mastery can hardly be overestimated. Pride thus achieved in one area may go far to make up for the defeats and discouragements suffered in other areas in which one's performance is, at best, but mediocre.

8. Curiosity

Unless mankind had been endowed with some degree of curiosity, we should probably still be living in the Stone Age. In his desire to project his ego upon his surroundings, man has always found in natural phenomena and in the physical forces around him plenty of challenge to his ingenuity. The psychology of the inventor and of the trailblazer in any area of human investigation is principally based in an insatiable curiosity to know and to understand the universe.

At the child level, there exist innumerable challenging situations in the investigation of which the ego finds unlimited opportunities for projection. The baby, almost as soon as it is old enough to focus its eyes steadily upon a stimulus, watches a beam of sunlight playing upon the wall of the nursery; in his face there is wonder. The three-year-old, delving with his shovel in the dirt in the back yard, is curious to know the feel of dirt, to know the thrust of digging, to experience the sensation of climbing into and out of a hole that he has made, to observe the stones and roots and perhaps the bits of broken pots he comes upon. Later, at four and five, he is curious about the people he sees, the objects he passes, the processes he observes. In his rapid-fire "Why?" and "What?" questions, he strives for comprehension of his world through explanations and descriptions. Along into the school age, his curiosities deepen still more as

he studies the material phenomena about him. Birds, flowers, insects, animals and their habitats; rain and snow and clouds and winds; peoples and products of other climes; events of the past and of the present; elementary agriculture, chemical principles, electricity, communication— these subjects of the curriculum all tap deep wellsprings of curiosity in most children. Motivation of learning becomes for the insightful and understanding teacher in large measure the clever stimulation of the wonder sense in boys and girls, who are naturally eager to find answers to intriguing questions.

9. Rivalry and Competition

Aid and comfort are given to the ego of most individuals through competition. Even animal pets will display primitive rivalry; observe a dog nosing away a cat to which a hand is outstretched, then offering his own back or ears for stroking. In children, rivalry in its most primitive form is seen in the dark scowls with which the baby greets a potential rival in the person of another baby brought into his home and actually taken up on the lap of his own mother! At this level of child evolution, jealousy and rivalry have no clear line of demarcation.

Rivalry and competition have their heyday when the social age of childhood dawns, and thereafter. In the primary grades, there is plenty of evidence of the power of rivalry. Six-year-olds will compete for the teacher's favor by bringing her little tokens of their love, or by trying to sit beside her in the circle, or by trying hard to conduct themselves exactly as they believe she wishes them to do. They will likewise at this level compete for first place in the line; for selection to be "it," for approval of their handiwork, for use of a favorite medium or piece of material, for choice of game or story or activity. In grades above the primary, competition, while it still embraces actual in-school activities and tasks, flourishes more spectacularly upon the playground and in the non-school or extra-school projects in which the children engage.

There is observable among older children a strong undercurrent of competitiveness in almost every physical area. A child can demonstrate his selfness, and objectify it compellingly, in no better or more immediate way than by demonstrating his superiority in some specific situation. If he can outdistance his pursuers in tag; if he can unfoot his antagonist in a furious wrestling encounter, and end by sitting on him triumphantly; if he can kick a football farther than somebody else, or knock out a better fly, or pitch a better

curve; if he can yodel more melodiously or more startlingly; if he can do better tricks; if he can ride his bicycle with more agility; if he can drive his sled farther, or aim an air rifle better, or climb a post more quickly—if he can do any of these things, he is demonstrating to himself his ability to project himself upon his fellows, and he is demonstrating to them the fact that he is a person of parts and consequence in juvenile society. Awareness of both these things is peculiarly flattering.

10. Display

Here is an avenue of self-protection not entirely unlike that of rivalry and competition. The essence of display is, of course, an inner satisfaction with oneself because of the obvious fact that one has been able so to project one's ego upon the environment that others are compelled to remark one's achievements. In its more primitive form, as it exists in early childhood, display is probably hardly more than a conscious delight taken in some personal charm or possession that can be held up to the gaze of others.

Susan had a brand-new pair of shoes, with very black shiny toes. While being led along by her mother's hand across the plaza and along the street, Susan kept alternatingly stooping over to observe her shiny new shoes and straightening up to point them out to passers-by. On her face was a happy expression of mingled delight at her possession and triumphant acknowledgment of the congratulatory appreciation that everybody else must be having of her shiny shoes. Susan was only two years old, but a child of two can probably feel keenly the joy of primitive display.

Among elementary-school children, this mechanism has lost most of its primitive delight in mere exhibition and has taken on its true ego-projection aspect. Display of his charms or abilities or possessions becomes now an avenue through which to demonstrate the circumstance that the child has brought his talents to bear upon his environment, and has achieved thus and so in consequence. A new dress, in itself an evidence of the paternal prowess, is enhanced greatly by attention to posture and hair-do and feminine artistry in general. A new ring, or bracelet, or sweater, or blouse affords opportunity for a modicum at least of display. Talent at playing the piano for morning song is likewise a source of inner gratification. Exhibition of one's collection of leaves, or of one's new pencil case; schoolroom displays of written work, art products, constructional

products, regional products, and the like; rendering a solo or duet; playing in the school band or orchestra; bringing from home articles to illustrate something studied in geography or history—these are all examples of display as a means of convincing both oneself and others of one's personal prowess and worth.

Children sometimes use the display mechanism in bizzare and striking ways. One six-year-old, for example, had a loose tooth, and for several days before it finally fell out she entertained her mates by wiggling the tooth to and fro with her forefinger. For the time being she was quite a heroine—possessor of something which nobody else had; a swaying and swayable tooth! Tom, eight years old, had cut his finger with a knife. At recess time next day, he was observed to be the center of an eager group of other third-graders as boldly, and not without great show of pain and discomfort, he lifted the bandage to exhibit the wound to his mates. Fred, 9 years old, had learned to draw up his two ears a good inch above their proper location, and he was never wanting for admiring juvenile observers (and emulators) as he practiced his motor skill. Jean, 8, could converge her eyes upon the tip of her nose, and she was in considerable demand as an exhibitionist of the art among her mates.

11. Sparring and Fighting

In their passion to project their egos upon their surroundings, children indulge in a great deal of arguing and sparring with one another. Sometimes this hurling about of claims and counter-claims, of charges and counter-charges, eventuates in actual physical combat; sometimes it runs itself out in words and diatribes. The psychology underlying it is clear enough; the child craves to maintain his prestige, his assurance of status, and when it is endangered or challenged he is compelled to retaliate in some suitable way. School-age children spend much time in vociferous and violent disputation. They may agree in the fundamentals of a game or sport, but when it comes to particulars and incidentals they find plenty of details about which to argue.

Physical fighting meets the same need for self-realization and self-projection. Through this strenuous, rough-and-ready means, a boy can almost literally hammer out his awareness of self and compel the admission of it on the part of others. There is rarely any real basal underlying cause back of children's fights, beyond the vague recognition of the fact that here is a way to assert oneself, win one's way, establish oneself in the esteem of others. Thus it is that children are not at all averse to becoming embroiled over some trifling

affair or other. If there is no recognizable issue at hand, they will often create an artificial one and "pick a fight." By laughing at the gaucheries of a mate, or sneaking up behind him and yelling in his ear, or tripping him up as he walks or runs, or mocking him, or "daring" him, one boy can usually prod another one into a fight without much difficulty. Once it has gotten under way, it attracts other children, as to a circus ring, and they delight to egg on the two contestants. Occasionally a two-boy encounter overflows its banks, as it were, and becomes a sort of free-for-all in which a dozen or more children are shortly mixed up. Mothers are apt to look somewhat askance upon fighting, missing the real point and purpose of it as developmental of the ego, and instead condemning it as silly and cheap, like any brawl. Teachers, while compelled by the professional mores to condemn and disapprove of fighting, should occasionally be myopic when these harmless fracases occur.

There is a sublimated form of fighting that even parents and teachers can approve whole-heartedly. Standing up for what is right in conduct and ideals requires quite as much courage as does striking out with clenched fists. Learning to hold oneself steadily upon one's chosen course; to condemn and denounce wrong in whatever guise it may appear; to champion the cause of the poor, or the underprivileged, or the unfortunate; to exert one's influence always on the side of justice and right—these are objectives worthy of anyone's steel. This is fighting at its noblest and best. Elementary-school children are not too young to enroll in this sort of human struggle. Rightly directed, it may become a strong motivating force in their everyday living. Telling the truth, against some pressure; maintaining reasonably good posture; keeping speech clean and straightforward; doing one's assignments cheerfully and faithfully; keeping one's mind occupied with good thoughts and purposes—these are forms of sublimated fighting that every boy and every girl of school age can engage in every day of their lives.

12. Wanderlust

Finally, children find self-expression through roving about. There is wanderlust in the blood of all of us, and we, like them, enjoy the road. Almost as soon as the toddler is old enough to trot about, he explores the yard first, and then stands by the gate and looks out into the enticing world. Parents, aided and abetted by manufacturers, make use of all manner of restraining devices to hold their toddlers riveted to the porch or the lawn or yard, knowing full well

their flair for wandering away. When they get too big for these restraints, they run excitedly about over the neighborhood, curious to see, eager to master its mysteries. Older children may be seen on any holiday afternoon and on Sundays proceeding in small groups or gangs in the direction of grove or lake or park or outskirts. If they have bicycles, they may satisfy the wanderlust by reaching more distant objectives, or they may be content merely to pedal about along the old familiar ways. With their elders in the family car, they may still further satisfy their roving, questing desires. Within the last half century we have become rapidly a nation on rubber tires, a circumstance that can hardly fail ultimately to alter our national psychology.

Children who play hooky from school, or who run away from home, may do so in part because of discouragement, or resentment, or the desire not to be a burden; there is no denying the fact, however, that much of the restlessness that eventuates in these forms of conduct springs from the wish to see something more of the world than one can see within one's own horizons, and to project one's personality upon some new and untried way of life. These extremes of conduct are, of course, abnormal. Most children, while they may feel the stirrings of wanderlust within themselves just as strongly as do those who run away, learn to be content with the vicarious experiencing of this desire. Through travel books, moving pictures, wild West tales, imaginary trips, and through listening to the word-of-mouth reports of others who have ventured across the horizon, they may find satiety for this urge to ego-projection. Teachers may and should make much use of this mechanism in the motivation of such subjects as literature, geography, history, and current events.

A CHILD'S HABITS BECOME HIS MOTIVES

We have noted in Chapter 3 something of the strength and nature of habits. We are what we are largely because we are creatures of habit. In childhood, while habits are building up, the pattern of adulthood is being cut inexorably. To the extent that a child's habits are constructive and wholesome, the pattern is promising; to the extent that they are negative and vicious, the prognosis for adulthood is dubious.

Regardless of their nature, the habits a child forms become motives for his future conduct. If he cultivates honesty as a policy, his habits of honesty will motivate him to be honest in the future. Being

a creature of honesty today, he cannot be other than honest tomorrow. If, on the other hand, he is dishonest and tricky, his character will reflect these traits and will develop true to form. It is impossible to escape the motivation of habit, whether the habit be one of truth-telling, or of methodicalness, or of reverence, or their opposites. In every area of conduct and behavior, a child is at any given moment the sum total of his habits, and they in turn drive him forward to whatever logical end or goal is indicated. This motivating force exerted by a child's habits should never be forgotten by parents and teachers as they strive to encourage the building of sturdy habit foundations in the children under their tutelage.

MOTIVATIONAL POWER OF ATTITUDES

Like habits, attitudes are powerful motivators. As we have already seen (see Chapter 10), children's attitudes are fashioned from the experiences, personalities, and events with which they come in contact. Once fashioned, they become to all intents and purposes quite as permanent and indestructible as habits. From their earliest days, children are developing them, and they tend to grow more and more tenacious with the years. Attitudes toward other nationalities; attitudes toward children of another race or country; attitudes of straightforwardness and cooperativeness, of thrift and ambition, of industry and reliability—these are among the nascent personality traits that make their appearance early in the life of the school child.

The driving power of attitudes such as these is enormous. If a child feels sympathetic toward others, it is easy for him to act sympathetically toward them, and to become their champion against detractors. In due time, it will be easy for him to expand his sympathetic outlook to embrace other people—maybe all people—who are oppressed, to the extent even of becoming their champion or of leading a reform in their behalf.

The story is told of Jane Addams who, as a little girl of eight, rode one day in a carriage with her father through some of the narrow, depressing streets of the Chicago slums and past poor, mean little houses in which the immigrants lived. "I shall build me a big house some day," she remarked. "It will not be among the big houses, but here among these little houses!" True to her promise, when she grew up she founded Hull House, in the heart of the poor district. Thus an early attitude of sympathy for the unfortunate

came to be the dominant note in a life that was to be given unselfishly in social service, and Jane Addams's Hull House became one of the most noted social settlements in the world.

There is no question but that, if teachers and parents could appreciate the motivating force of attitudes, they would place much greater emphasis upon the cultivation of them in their children. One does not expect every girl to grow up with the social consciousness of a Jane Addams. One ought, however, to expect that every girl and every boy shall grow up with a keen sense of justice, with a hopeful world outlook, with a faith in mankind, and with a sense of his own personal obligation to the amelioration of the social scene. Too many children in the past have been allowed to grow up more or less without any dynamic social consciousness, with the result that they become adult citizens and voters filled with aversions and prejudices, and selfishly committed to a way of life that takes little heed of the welfare and needs of their neighbors and of their world.

INTERESTS AS MOTIVES

At the age of eleven, recovering from a severe attack of diphtheria, Marlie was unable to return to school for almost a full year. In early summer, following her illness, the doctor prescribed that Marlie must be out of doors as much as possible. This was no great hardship, for the child loved the out-of-doors. In the fields and on the hills beyond her suburban home she had often played with the other children. Now, with this new freedom, she grew intensely interested in butterflies. With a net she spent hours every fine day collecting specimens. With cyanide jar and mounting boxes and pins she plied her avocation until by the end of the summer she had hundreds of mounted butterflies. She became interested in their scientific names, and on the ends of the boxes and beneath each mount she wrote in both the Latin and the English names. Through friends she was put in touch with a girl in South America, and with another one in Scotland, and within a year her collection included hundreds of exotic varieties. Night-flying moths intrigued Marlie at the same time, and she made a beautiful collection of lunas, cecropias and other large moths. She became, as she grew older, a rather well-known authority in her field, and, while still in her 'teens, appeared on the lecture platform in schools, neighborhood clubs and forums, spreading far and wide the beauty which she had found in insects. Later on she contributed feature articles to the local press about *lepidoptera,* and presented her large collection to

a natural history museum, where it continued for some years to be enjoyed by young and old alike.

An interest, whatever it is, has all the potentials of a strong motive. For this reason, healthy interests need to be encouraged in children. In prosecuting a hobby not only does the child increase his store of wisdom and skill, but his thoughts and efforts are kept functioning in constructive channels. The transformation that might be wrought in bunches of boys who hang about poolrooms, or who haunt cheap spas, or who congregate idly on street corners, if their milling energies could be concentrated upon such interests as photography, constructional activities, bands, radio clubs, athletics, and the like, is utterly incalculable. When in some future millennium our communities are organized in such a way as to include opportunities and leadership for the leisure-time activities of all the youth in the neighborhood, we shall have dealt a mortal blow to delinquency, waywardness, and crime. Meantime, teachers should encourage their children by every possible means at their command in the development and following through of many-sided interests. A good and lasting interest motivates a good life.

SUCCESS AND FAILURE AS MOTIVES

If it is true that nothing succeeds like success, it is largely because success, once tasted, acts as an appetizer for more success. A child who tastes only failure, on the other hand, has no stomach for more. Every child ought to have daily the stimulating experience of real success in some area or other; and the more areas, the better. There is a tonicity about success that expands the whole personality. If a boy succeeds in his efforts to throw a dam across a brook and sluice its impounded water over his water wheel, he is eloquent with self-feeling. If he can raise his litter of pigs up into hogs for market, if he can solve unaided the baffling arithmetic problem, if he can by diligence win the coveted Scout honor, he has a proud consciousness of achievement and will be tempted to go on to other victories. If a girl bakes a prize-winning cake, or if she wins the distinction of being always reliable and dependable as a baby sitter, or if she achieves a place on the honor roll, or if she earns an award in Camp Fire, she knows the thrill of success and will be eager to repeat the experience.

Failure shuns repetition. Failure slinks away from the ashes of

its undoing and seeks to drown itself in an interpolated success, often in unworthy or destructive enterprises. Failure becomes thus a motive to run away from one's Waterloo, instead of to rearm and readvance upon lost terrain. Grownups who fail, or who are thwarted, may sometimes adopt the axiomatic "Try, try again!" Children, with less resistance power and less determination, will less often do so unless carefully directed and aided by their elders.

EMOTIONAL DEPENDENCE AND INDEPENDENCE

It is a pleasure to see children who are achieving emotional independence from the parental bondage, and who are establishing their own personalities on a normal basis of self-determination. Unfortunately, as we have already noted in Chapter 2, not a few parents are unable or unwilling emotionally to assist their children to grow up emotionally. Rejoicing in the early complete dependence of their offspring upon themselves, and flattered by the unshared love they display so artlessly, such parents dread the time when, in the natural order of events their children will feel other loyalties and enjoy other comradeship. Thoughtless of the effects upon the evolving young personalities in their family circle, they selfishly strive to keep them infantile and dependent. They guard them from the normal contacts they ought to be having with other children; they overwhelm them with affection and babying; they encourage them to keep their crafts safely tied up at the old familiar anchorage; they talk dubiously about any future different from the present, which is represented as being altogether complete and perfect.

The motivational power of this sort of emotional dependence upon the family circle is obviously exerted toward introversion and withdrawal. No child can spend his early years tied to the heart-strings as well as to the apron strings of his parent and possess, at ten years of age, any great amount of independent force and drive. Instead of having been emotionally weaned from his home, he has become more and more dependent upon it for security, for sympathy and soothing, and for direction. Instead of knowing how to stand on his own feet and to win his way aggressively and valorously among his mates, he turns aside from the give-and-take of juvenile society and runs back emotionally if not physically to the security he knows. Only that is real and assuring; all else is hollow and frightening. As he grows up into and through adolescence, such an

individual may never be able to shake off the palsying emotional fingers of the past and square off to meet life with conviction and eagerness.

In contrast to the emotionally dependent child, the child who has been emotionally weaned looks out upon his world with a pleasurable eagerness to conquer it. He has no less affection for his family circle than does the introverted child who has been kept infantile in his emotional status; but he has a normal, healthy interest in affairs beyond his own threshold, and he plunges off questingly and happily into them. His parents, watching him in his march of conquest, can not only take delight with him in his triumphs but they can know the satisfaction that comes with an awareness that they are working with immutable laws of growth and development, and not against them.

REWARDS

To judge from the actions and attitudes of many children, one would infer that they have learned to expect some sort of tangible reward for everything they do. This mercenary outlook is seen in a boy who prefaces any offer of service that he makes his parents, or anybody else, with a statement of his price. "Will you give me a nickel if I do that?" "Can I have twenty-five cents if I will?" These are questions heard altogether too frequently from the lips of nine-year-olds. They reflect a kind of bribery which the parents of these children have been holding out in order to get the simple duties done, the errands run. Good conduct, good grades in school, obedience, quiet, are all purchasable, it appears, in hard coinage.

Rewards, unquestionably, have their place in child training. In general, however, the more immaterial and the more lacking in intrinsic value they are, the more they are to be recommended. Rewards or benefits that can be shared and enjoyed with others are likewise wholesome, such, for example, as a trip with the family to the theater, or in the automobile. Spoken thanks; occasional words of appreciation when a child has done something thoughtful or helpful; oral commendation for a good report card; one's name listed with those who have achieved worthily—these are the types of simple rewards of merit that ought to be used almost exclusively in the training of children. The reason is obvious: a child ought to learn to do right for the sake of right, not for the sake of a coin; he ought to find his pleasure and satisfaction in the simple awareness of the fact that he has done well.

The case for material rewards is less obvious. True, in the modern world in which children commonly have much more spending money and much more elaborate toys and playthings than their parents and grandparents had when they were growing up, children feel rather keenly the need of material possessions. We may condone the fact that today's children have sizable allowances, expensive bicycles, private radios in their rooms, and other practical evidences of the parental liberality and affluence. It is a mistake, however, to provide children with these possessions as out-and-out rewards. Rather, they should be recognized as belongings and furnishings or appurtenances that are a part of the family layout, allocated to the juvenile members of the group just as the paternal automobile and the maternal wardrobe are allocated to the adult members of it. Only rarely can such possessions be defended psychologically when given as bribes or as frank rewards. Occasionally, a solicitous grandparent, or aunt, or uncle, may promise a child something he has wanted for a long time if he will "get only A grades for the year," or will "practice his piano lessons faithfully every day all summer," etc. These indulgences may be condoned or even justified on the basis of the particular personalities involved, or because they afford a child the joy of experiencing the simple affection of a kindly relative. Beyond this, however, they are difficult to defend.

At the same time, one cannot entirely overlook the fact that frequent small incentives unquestionably encourage children and keep them satisfied, provided they are neither too elaborate nor too frequently dangled before them. The world would be prosaic indeed if nobody ever received any emolument for anything he did, or tried his best to do. A little extra incentive here and there, and a real reward, have their proper place in the development of a child's self-esteem and ambition, and as such may be approved. Such benefits should be given with reasonable promptness and not promised in some distant future day. A child's values are largely momentary. He cannot easily work for a reward that will be his "some day." Admonitions to save all his money so that he can go to college are likely to create little enthusiasm in a ten-year-old who wants a football or a bicycle and wants it now. Rewards, like punishments, need to be given promptly.

PUNISHMENTS

Punishments arbitrarily administered are rarely efficacious. They may leave the adult chastiser with the self-righteous feeling that he has taken punitive action against the recalcitrant child; but their effects upon the child are likely to be either neutral or actually negative so far as improved conduct and attitude are concerned. Fear, disgust, hatred, and the determination to hoodwink the adult by being more clever next time in covering up a misdemeanor are common results of this sort of vengeful punishment.

If it is to be beneficial, a punishment must be accepted by the child as reasonable, and must act as a deterrent to future repetition of his offense. Pain or unpleasantness must be associated with the wrongdoing. This pain need not ordinarily be physical. Whippings are less likely to correct misconduct than is the mental pain the culprit experiences from a realization that his parents are disappointed by his deeds, or that they are grieved by them. There is no better tonic to good conduct than the uninterrupted awareness that one has the deserved confidence and faith of one's elders. The desire to maintain this inner awareness will guard most children from doing anything very reprehensible, and when, in a moment of temptation or of pressure, they make a wrong choice, they will be likely to be unhappy and miserable until they have been forgiven and the old confident relationship has been re-established. All this is, of course, on the supposition that there is a real *camaraderie* between parents and child, the former appreciating the juvenile pitfalls that yawn about their offspring, and displaying sympathetic understanding of the struggles that must be made to avoid them; the latter realizing the unfailing parental solicitude and readiness to understand and forgive. Where such mutual feelings exist, the problem of punishment rarely emerges.

To be psychologically effective, right conduct must give pleasurableness and satisfaction, while bad conduct must give unpleasantness or pain. When this sequence is reversed, and a child achieves satisfaction and thrill from wrongdoing, the effects upon evolving control and conduct are obviously unfortunate. Many a child in the modern community gets a far greater thrill out of being a rowdy, or running with a mischievous or delinquent crowd, or outwitting the "cop," than he does out of decent, law-abiding conduct. Faithful and persistent and constructive training of every child by every parent is about the only weapon against such anti-

social behavior. By this means only, is it possible for pleasurableness and satisfaction to become associated increasingly in a child's mind with acceptable conduct, and for pain and unhappiness to be associated with the opposite. Habit patterns of conduct are built up inevitably by the continuing operation of this law of effect.

But the law of effect may backfire. A second-grade teacher, for example, had one stock punishment she administered whenever any child was "naughty"; he must go and stand in the corner and repent of his sins. In her mind, a culprit would presumably associate disgrace and shame with "being naughty"; and so, by all the laws of logic, would refrain in future from being naughty in order to avoid disgrace. In the minds of the thirty potential culprits in her room, however, a different association was made. The only available corner for penitents was one in which two blackboards came together. Appreciating the possibilities inherent in the situation, every boy in the room saw to it before school opening time in the morning that he had a bit of chalk in his pocket "for an emergency." Shortly after nine o'clock there was staged a daily competition among the boys to see who should have the distinction of being dispatched first into the corner. The daily winner was a real hero in the eyes of the rest of the children, for he could draw furtive pictures of "teacher" and erase them just in the nick of time. In his mind the association with "naughtiness" was thrill, boldness, limelight, exhilarating excitement, instead of, as the teacher supposed, shame and penitence. Here is a law of learning that must be watched lest it become a boomerang and stimulate the raising of juvenile rogues instead of juvenile saints.

PERTINENT QUESTIONS FOR DISCUSSION

1. Observe a young child under a year of age and note evidences of cephalo-caudal and of proximo-distal order of muscular development.
2. Have you had any opportunity to compare practiced children with unpracticed ones in any area of accomplishment to note the influence of maturation in the latter?
3. Do you honestly feel that some of the content of your course of study is offered the children before they have sufficient maturation to profit most from it? If so, what recommendations do you have?
4. Cite several examples of spontaneous activities in which you have observed a young child to be engrossed.

5. Make a collection of alliterative jingles, rhymes, secret alphabets and languages, etc., which you find children using.
6. How valuable and how universal a factor in ego-projection do you deem creativeness to be? Explain.
7. What popular forms of manipulative behavior do you find among your children? How are these ego-projective?
8. Trace the growth of pride and satisfaction in mastery in a child who has practiced some type of performance with long faithfulness.
9. In what interesting ways have you succeeded in using curiosity as a motivational drive in a child or in a class?
10. Do you find any striking evidence of competitiveness among children of your age group? If so, illustrate.
11. What evidences have you seen of children's liking for display of their achievements, possessions, temporary abnormalities, etc?
12. What is your personal attitude toward physical fighting among boys? Do you find a great deal of it among children at the age level of your class?
13. In what way or ways do any of your children show the influence of wanderlust?
14. In what sense do habits and attitudes formed by children become motives for future reactions?
15. Suggest an example in which a consuming interest became a strong motivating force in the life and conduct of some child whom you know.
16. Do you feel that any of your children are experiencing failure too consistently, either in school or non-school enterprises?
17. What incentives and rewards do you consider proper for children in your grade or room? What ones are of dubious value? What ones are downright negative?
18. What are some good individual punishments you have known parents to administer? Some bad ones? What ones do you make use of with your children? With what results?
19. Cite additional illustrations of misapplication of Thorndike's Law of Effect. Cite examples of its proper application.

READING COURSE TO PARALLEL THE CHAPTER

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4. JERSILD, A. T. *Child psychology.* 3rd ed.; New York: Prentice-Hall, 1947. Chapter 2.
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6. NAGGE, J. W. *Psychology of the child.* New York: Ronald, 1942. Chapter 10.
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CHAPTER 11

INTELLIGENCE AND INDIVIDUAL DIFFERENCES

Some Children To Identify in Your Room

A child who . . .

(1) is much above average in intelligence;
(2) is brighter than average, but possesses dubious personality traits;
(3) has for one reason or another undergone a change in I.Q.;
(4) has been removed from a poor environment and placed in a good one;
(5) has been removed from a good environment and placed in a poor one;
(6) differs in striking ways from another child of equivalent intelligence;
(7) balances another child at the opposite point on the Gaussian curve;
(8) appears to be learning satisfactorily at the limit of his potentiality;
(9) has an I.Q. you believe to be depressed by some extraneous factor;
(10) has more I.Q. potential than his school performance seems to indicate;
(11) follows along the Terman blueprint of gifted children;
(12) has some of the earmarks of a gifted child, but is lacking in others;
(13) has been given "forced" cultivation by his parents;
(14) is definitely "slow" or retarded;
(15) presents, because of his dullness, a serious school problem;
(16) is physically and socially a misfit among the other children;
(17) has poor vision, uncorrected; has poor vision, corrected;
(18) has poor hearing;
(19) has been crippled by poliomyelitis, or by some other agency;
(20) differs sharply in I.Q. from another child in a higher occupational group.

GENERAL ORIENTATION

The story has often been told of a boy and his dog who were playing together in the yard. The former was throwing a stick and the latter was running off repeatedly to fetch it back. In the midst of the game, the boy suddenly tossed the stick over the fence into the next yard. There was a picket missing in the fence, and through the opening the dog dashed after the stick. Carrying it in his mouth back to his young master, the dog was unable to get through the fence with it. For some time he pushed and strained against the pickets, but without success. Finally, unable to adjust to the problem, he dropped the stick and came back through the gap to his master without it.

Here is an excellent example of a low degree of intelligence. The animal could not adapt himself to the condition of getting through the gap with a stick in his mouth. He could leap through it empty-mouthed; or, if he had chanced to be carrying the stick at a different angle, or if the stick had been no longer than the gap was wide, he would have had no difficulty, for there would have been no problem.

Intelligence has been variously defined by many psychologists, and it is beyond our purpose here to repeat or add to such definitions. Essentially, intelligence is the degree of one's ability to adjust or adapt oneself to new situations for which one's past experience, though it has been retained, does not immediately or presently supply the key. Intelligence presupposes an alertness in grasping the elements in a situation; it implies also that once these elements have been apprehended, one will employ sagacity in achieving a solution to the problem presented. Measured against this dual criterion, the behavior of the dog in the stick-and-gap-in-the-fence situation impresses one obviously as indicative of no profound degree of intelligence in the animal. To the six-year-old boy gambolling about with his pet, such a situation would not even have presented a problem at all; had he been faced with getting a stick through the gap he would have thrust it through lengthwise and given the matter no second thought.

Alertness in grasping the elements in a situation may be further illustrated in the child by his behavior when confronted with a crayon or a picture book. By the time he is little more than a year old, he will grasp the crayon and proceed to make marks with it

on any paper or other medium available. Shown a picture, he will point out a child in it, or a dog, or a ball, and will make whatever elementary vocal responses he is capable of producing. His sagacity in adapting himself adequately to crayon and picture is decidedly human rather than animal, and, though of a low order, it is adequate for his present stage of maturation.

TESTING THE INTELLIGENCE OF CHILDREN

The most widely used test of intelligence is the Stanford-Binet test, developed by Dr. Lewis M. Terman, and his associates, at Stanford University. Originally published in 1912, it was extensively revised in 1937.[1] In its present form, it is used to examine children as young as two years of age, and includes tests at subsequent year levels up to adulthood. The test items were selected from a large range of situations that confront children at each age, and to which the average at each level can react constructively. Among them are problems or situations involving vocabulary comprehension, word-naming, design-drawing from memory, memory for digits, giving differences and likenesses, recognizing familiar objects, etc. A few manipulative situations are also included to test the child's ability to follow directions, match objects, etc.

The child at school entrance (six years of age), in order to pass the tests for his level, must be able to define certain words, like "orange," "envelope," "straw," etc.; enumerate by designating up to seven cubes; recognize differences between slightly different objects; and choose the shortest path through a simple maze to the goal suggested. There is a time limit set for some of the tasks.

The immediate purpose of the tests is to determine the mental age (M.A.) of the testee, and for this purpose the tests for any given year will, if successfully passed, yield twelve months of mental age. The complete setup of the Stanford-Binet 1937 Revision is summarized at top of Page 287.

While tests of the Binet type are individual, and as such require specially trained psychometrists to administer, teachers need to understand the procedure in order better to appreciate the findings the testers report for individual children examined. Below is a typical sample. The child tested was seven years and three months of age. That is to say, he had a calendar age (C.A.) of 87 months.

[1] L. M. Terman and M. A. Merrill, *Measuring intelligence* (Boston: Houghton Mifflin, 1937).

Age	*No. of Tests or Problems*	*Value of each in Months of mental age*
2	6	1
2½	6	1
3	6	1
3½	6	1
4	6	1
4½	6	1
5	6	1
6 to 14	6 for each year	2
Average adult	8	2
Superior adult 1	6	4
adult 2	6	5
adult 3	6	6

Being suspected of being below average in intelligence, he was started at the five-year level of the test. He performed as follows:

	Months of mental age
Credit assumed for first four years.....	48
Year 4½ 4 tests passed	4
Year 5 3 tests passed	3
Year 6 3 tests passed	6
Year 7 1 test passed	2
Total	63

Being 87 months old chronologically, this child has achieved a mental maturity of only 63 months, as measured by the test. He is obviously considerably below average. By finding the ratio of his mental age to his chronological, we shall be able to establish his degree of intelligence. This is done by dividing the mental age (63 mos.) by the chronological (87 mos.), the resulting figure being the child's intelligence quotient, or I.Q. Performing the division: $\text{I.Q.} = \frac{63}{87} = .72$.

Reference to the evaluating table below indicates that this child falls within a low-grade, borderline group of people not much removed from feeble-mindedness. For such a child, obviously, the

regular class will be a waste of time; special class training for him is indicated on the face of the test results.

Far more commonly, in the nation's schoolrooms, will be found children whose I.Q. falls within the normal range (90 to 110). The following would be typical results of testing such a child by the Stanford Revision test: The child tested was nine years and one month of age (i.e., 109 mos. of chronological age). On the tests he scored as follows:

		Months of mental age
Credit assumed for first seven years		84
Year 8	6 tests passed	12
Year 9	5 tests passed	10
Year 10	3 tests passed	6
Year 11	1 test passed	2
Total		114

$$\text{I.Q.} = \frac{114}{109} = 1.04, \text{ or } 104$$

This child is obviously of good average ability, as may be seen by referring to the interpretative table.

TABLE OF INTERPRETATION FOR I.Q.'S

Above 130	Exceptional; genius
120–130	Very superior;
110–120	Superior;
90–110	Average; normal;
80–90	Dull;
70–80	Borderline;
Below 70	Feeble-minded; defective.

As a teacher, of course, you will have much more experience with the use of group intelligence tests, of which there are scores on the market, adaptable for every grade from kindergarten to college. They may be administered by the classroom teacher and, while they do not yield reliable I.Q. scores, they do provide a reasonably adequate basis for the ordinary teacher to determine relative intelligence and scholastic ability among the children comprising her group. By their use, she can at the very beginning of the school year classify her children (for her own guidance, of course) into the slow-moving, the average, and the rapid-moving

groups. For the first of these she will need to provide a minimum content program. For the third group, she will find it valuable to provide a greatly enriched and broadened curriculum in order to keep bright, keen minds productively occupied. For the middle group, she can follow through the regular course of study with reasonable expectation of successful performance on the part of each individual. To these, the major portion of her time should be devoted.

DOES I.Q. CHANGE?

A question that has interested psychologists and teachers for some time concerns the constancy or the inconstancy of the I.Q. Will a child, for example, whose I.Q. was established by competent examination at the age of six, be found to have the same I.Q. when retested at ten, or at fifteen, or at any other subsequent time? Since the I.Q. represents the ratio of the chronological age to the mental age, it would appear theoretically that the quotient of these two would remain stable throughout the testing period. A number of careful studies in recent years has indicated that the I.Q. will remain reasonably constant, varying ordinarily only four or five points in either direction over a period of years, *provided* that there occurs during the interim no radical change in the circumstances surrounding the individual.

Suppose, however, that a child is removed from one environment and placed in another that is much more stimulating to mental exercise: Will his I.Q. reflect the amelioration in his situation? While results of investigations are not entirely unanimous, it has been found that it may be affected favorably, particularly in the case of children at the lower levels of intelligence; brighter children will show relatively little modification in I.Q. by placement in nursery school or exposure to other types of stimulating experience. Older children, when thus transplanted from an unfavorable to a more favorable environment, such, for example, as being removed from a deficient home and placed in a good foster home, will react less favorably to the new stimulation than will younger children, who will, over a period of a few years, often improve several points in I.Q. under such changed circumstances.[2] It must be admitted, however, that sometimes the reverse takes place, and

[2] As indicative of what understanding and an improved social environment may do to improve I.Q.'s see the work of Miss Bernadine Schmidt, in Chicago, as reported in *School and society,* December, 1945.

an I.Q., instead of improving, actually worsens, even when the child is put in what would presumably be considered a fortunate environment. Much more research will be necessary before we can get at the root of this matter. Studies thus far reported include only a small number of children.

INTELLIGENCE ONLY ONE ITEM IN THE CONSTELLATION OF TRAITS

You will discover among your children that even those who have the same I.Q.'s, or approximately the same, will differ surprisingly in the way in which they invest their intellectual capital. One bright child, for example, may be self-possessed and ambitious; another may be uncontrolled, and may idle away much of his time. One dull child may be courteous and may try very hard to do his best with his assignments; another may be rude and lazy and indifferent to all the efforts the teacher may make to arouse him to use what little capital he may have. Similarly, of two average children, one may be a source of perpetual comfort and joy to you, while the other may be a sore trial and a disappointment every day he is with you.

Intelligence, in other words, while it unquestionably is an important component in the constellation of traits, is after all only *one* factor. If it is to play its proper role in motivating the behavior and performance of a child, as of an adult, it must be set in a general personality conspectus of fortunate character traits. The prodigy who has no ethical sense; the ordinary, run-of-the-mine child who is shiftless and tricky; the dull-witted child who is surly and dishonest—these are children whose actual intelligence counts for but little, so overshadowed and dissipated is it by unwholesome and unhygienic character and personality traits. On the other hand, set appropriately in a surrounding background of honesty, ambition, and winsomeness, the intelligence of a child, be it low, average, or high, may be counted upon to seek its highest potentials. To paraphrase a famous axiom: Intelligence is as intelligence does. It *does,* in considerable measure, as it is activated by other adjuvant or destructive traits of the personality.

IMPORTANCE OF EARLY TESTING

As indicated above, there are available intelligence tests, both group and individual, for all ages of childhood and youth, from the prekindergarten age upward. In their efforts to go at the educa-

tive process scientifically, a good many school systems now require for classification purposes a group intelligence test to be administered to all kindergarten children. In this way it is possible not only for the kindergartener to work intelligently with her individual children, but also for the results of these early tests to be made available later on to the regular first-grade teachers so that they may know in advance something about the capacities of their pupils.

Since somewhat less than half of the better educational communities—and relatively few of the poorer ones, obviously—maintain public kindergartens, it is apparent that if the contributions to early primary education made possible by intelligence testing are to be taken advantage of, most first-grade teachers will have to do their own testing. Individual child study is essential at the first-grade level if the teacher is to work intelligently with her children. Intelligence tests administered in a first grade do not provide the teacher with a final and foolproof analysis of the capacities and abilities of her several children; they will, however, be very helpful in supplementing the teacher's judgment; indeed, in providing her reliable data in advance of opportunity to comprehend their abilities through personal observation, a tolerably sound and workable basis is afforded her for making initial judgments and dispositions. It ought not to be too much to recommend that some kind of group intelligence test be administered to all children who enter school, either at the close of kindergarten, or at the time of actual entrance to the first grade.

The Pintner-Cunningham and the Kuhlmann-Anderson tests, to mention but two of those commonly given at this level, can be satisfactorily administered and evaluated by the teacher herself. An expert clinical tester, or psychometrist, is required only in the cases of those relatively few children who are exceptional, and whose placement and status in the system are not immediately clear. Few classroom teachers are, of course, qualified to administer individual intelligence tests of the Stanford-Binet type. One or more reading readiness tests may also be very profitably given early in the year, and intermittently as the year progresses, as a further aid to the teacher in identifying those children who may safely be started on a reading program.

From the insight that tests of intelligence and of readiness yield, supplemented by reports that have come up to her from the kindergartner, if any, and by her own day-by-day observation and study

of her pupils as individuals, every teacher should find it relatively simple to classify her children into such temporary groupings as may be advisable. These groupings should of course be very flexible, making it an easy matter to reclassify individual children as they progress, or fail to do so, satisfactorily.

For various reasons that need not be examined here, early mental tests are somewhat less reliable than those administered after the child has entered school. In consequence, the primary teacher will need to use caution in the interpretation of scores received by preschool children, although there is a substantial correlation between test scores of three-year-old children and scores of the same children two or three years later. Fluctuations in an area so turbid as intelligence are to be expected; illness or absence from the stimulating example of other children, emotional maladjustments and conflicts, and transfer from one environment to another may all affect the I.Q. of a child, as may also the differing personalities of psychometrists and testers. Wide discrepancies in intelligence over a period of years in the same child, provided he has been tested by a competent analyst, are unlikely to occur.

RATE OF MENTAL GROWTH

From the earliest weeks of the child's life there is apparent an increasing degree of mental growth. During the first months, he is all but inundated by the flood of sensory stimuli that pour in upon him. Little by little, however, he begins to identify certain familiar objects and processes, and to label each non-linguistically, and vaguely ideationally. Of the person who provides him comfort and locomotion he has a dawning perceptual awareness; of his bottle, of the family dog, of the confusing pattern of movement and change that flashes about him, he begins to get faint glimmers of understanding. When he can crawl about the floor and can explore and investigate and grasp, his area of activity and comprehension broadens conspicuously. Still later, when he can run about, the horizons are pushed still farther outward and the amount of information and understanding he amasses is considerable in the ordinary family environment.

Psychologists are agreed that the rate of mental growth and development during the preschool years is never afterwards approached, though it continues to be relatively high during the earlier school years, up to the age of about ten. Thereafter, its up-

ward progression tends to proceed less precipitously, reaching a final plateau level somewhere toward the end of the 'teen years. There is so much of a perceptual nature to be learned about that the first decade of a child's life has to be principally devoted to the mastery of the objective world of things and the dynamic world of events and processes. Thereafter, accretions will be more definitely ideational than sense-perceptual. Acquisitions of this sort are achieved relatively slowly, as compared with the speed with which the objective world can be comprehended. We can understand, therefore, why there is a slowing up in the rate of mental growth as the child passes through the intermediate and into the higher grades. He has mastered the simpler elements of perceptual knowledge; henceforth he must master ideas and relationships and the difficult language of symbolism.

INDIVIDUAL DIFFERENCES

As we have already stated, children having the same I.Q. will be found to differ strikingly because of various contributing personality traits and backgrounds of experience. But of course most radical are the differences among individuals with different I.Q.'s. By referring to the table on page 288 you will note that the range of human intelligence goes from the extreme of feeblemindedness and deficiency to the opposite extreme of genius or exceptional brilliance. We may show this distribution of intelligence on the Gaussian curve, often referred to as the curve of normal distribution.

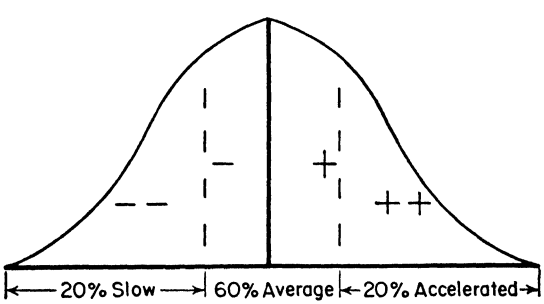

FIG. 27

If we measure the intelligence of 1000 unselected children six years of age, at the time of school entrance, we shall find that they will fall neatly upon the curve of normal distribution. The ma-

jority of them (some 55 per cent) will have average intelligence, ranging from I.Q. 90 to I.Q. 110. They will comprise that vast group of ordinary, average children who will become in due time the ordinary, average adults in the community. The same ratio would be found if, instead of 1000 children, we tested 100,000 or 1,000,000. Fifty-five per cent of them would be average. And if it were possible to measure the intelligence of the 140,000,000 people who comprise our total population, we should find that 55 per cent of them possessed average intelligence.

Going back to the 100 six-year-olds, we shall find 45 per cent of them to be other than average. Half of these, i.e., approximately 22½ per cent of the whole number, will test higher than the average, normal group, yielding I.Q.'s therefore in excess of 110. The other half, the other 22½ per cent, will test lower than average, yielding I.Q.'s below 90. Each of these non-average groups will be distributed along the falling rim of the Gaussian curve. The farther away people are from the average, the fewer there are of them; conversely, the nearer they are to the average group, the more of them there are. The implications of this are obvious. There are few idiots in the world, more imbeciles, and still more morons. At the other side of average, there are few genuises in the world, more very superior, and still more superior. The numbers at each opposite position on the curve balance; that is to say, there are as many idiots as genuises; as many borderline people as very superior ones; as many dull as superior; as many low average (I.Q. 90 to 100) as high average (I.Q. 100 to 110). The relative height of each vertical line erected between the base line and the circumference in Fig. 27 indicates the relative number of people at each I.Q. point. If we extend the 1000 to include 140,000,000, we shall find the same relative distribution of the above-average and the below-average in the population.

LIMITS OF EDUCABILITY

The innate intelligence with which a child is endowed represents the mental capital he may invest. The size of his investment, however, is limited to the amount of his capital. Obviously, an imbecile cannot by dint of any known kind of teaching or training be transformed into a genius. Neither can a dull child be made into a clever one. A child's intelligence, in other words, sets the limits of his educability. This does not mean that a moron cannot learn,

nor that a superior individual cannot fail to learn; it means only that either can learn to the extent of his innate intellectual endowment, *provided* the proper stimulus and opportunity are afforded and there is a determination to better himself. No matter how strong may be stimulus, opportunity, and determination, however, the moron remains a moron though he may climb to the top of the range of morons. In character and solid citizenship, he may be superior to many an average individual who is lazy, or indifferent to learning, or has had no opportunity to improve himself. Even a person who is superior in mental capacity may be a disappointment to everybody who knows him because he is shiftless, idle, or lacking in positive character traits that would drive him to achieve.

The fact must be recognized that, while the intelligence is ordinarily not improvable from the standpoint of increase in I.Q., various factors may contribute to hold a child's I.Q. down to a needlessly low level. For example, an unstimulating environment, or a hypoactive thyroid, or poor health and weak constitution, may so depress an I.Q. as to cause a child to appear and to react as pseudo-feeble-minded. At some subsequent time when the environment has been corrected, or the glandular deficiency made good, or the general health and stamina improved, a child's I.Q. may register a good many points higher than before. One should not draw the conclusion from this circumstance that an I.Q. is improvable; it is rather the case that it could not be correctly measured while the individual was in an abnormal condition. Now that the abnormality has been removed, it can be accurately computed. As we pointed out before, the older the child becomes before his deficiencies are corrected, the less is the likelihood of any radical improvement in his I.Q. Here is a strong argument for adequate health supervision and stimulating surroundings in the early life of every child.

One obvious component in a stimulating environment is full and free educational opportunity. It has been shown in studies of children in sequestered regions of Kentucky and Tennessee, for example, where there are no organized schools or other educational influences, that the younger ones test somewhere around 90 on the Stanford-Binet scale. This reflects obviously their lack of exposure to educative influences. More striking still, the same studies have indicated that with each added year of age children in these unstimulating environments test several points lower. This rather dis-

couraging fact may be attributed to the absence of language training and the consequent inability the children have to handle the test situations set up, which presuppose from year to year increasingly an understanding of words and word meanings. Stanford-Binet test items at the five-year level tap performance and non-linguistic skills, and sequestered younger children consequently do relatively better with them than their older brothers and sisters do with the language items. It has been found, too, that when the turn of fortune's wheel operates to transport some of these mountain children at an early age to a more fortunate environment, their I.Q.'s often advance many points.

THE BRIGHT CHILD

Possibly ½ of 1 per cent of all children are precocious; that is to say, their I.Q.'s are 130 or higher. We can only guess what was the I.Q. of young Francis Galton who, shortly before he was five years old, wrote to his sister the following remarkable letter:

My dear Adele:

I am four years old and can read any English Book. I can say all Latin Substantives and Adjectives and active verbs besides 52 lines of Latin poetry. I can cast up any sum in addition and can multiply by 2, 3, 4, 5, 6, 7, 8, 9, 10, 11.

I can also say the pence table. I read French a little, and I know the clock.

Francis Galton,
Febuary 15, 1827 [February misspelled]

That young Galton's I.Q. did not become depressed during the next few years may be deduced from the following letter, which at the age of ten he wrote to his father:

My Dearest Papa: December 30, 1832

It is now my pleasure to disclose the most ardent wishes of my heart, which are to extract out of my boundless wealth in compound money sufficient to make this addition to my unequaled library:

The Hebrew Commonwealth by John	9s
A Pastor's Advice	2
Hornne's commentaries on the Psalms	4
Paley's Evidence on Christianity	2
Jones Biblical Cyclopedia	10
	27s

Analysis of several hundred geniuses have been made by psychologists, most of whom were conspicuous in their earliest childhood for abilities and skills and interests far in advance of those of their less gifted fellows of similar age. Charles Dickens wrote a play and read *Vicar of Wakefield, Robinson Crusoe,* etc., before he reached his seventh birthday. J. S. Mill was studying Greek at three, and could read Plato by seven. Many other bright children who were destined to achieve fame later on, on the other hand, were disappointments to their parents and teachers. Oliver Goldsmith, for example, was dubbed by his boyhood teacher the dullest child she had ever had. Philip Sheridan was distinguished by nothing except idleness and winning manners. Wagner was lazy and slovenly. Lord Byron stood perennially at the foot of his class. Charles Darwin was rebuked by his father thus: "You care for nothing but shooting, dogs and rat-catching, and you will be a disgrace to yourself and to all your family." Richard Sheridan was pronounced by his master "an incorrigible dunce." Sir Walter Scott was reputed to have "the thickest head in school." Milton and Swift were noted in their childhood for their stupidity.

And so the list runs. It is apparent that a young genius may be anything but a satisfactory pupil. Perhaps one should better say merely that many children in a past age who were destined to become famous later on were not good pupils. It is quite likely that with our better system of education today and with our greater knowledge and skill in handling gifted children, we may stimulate them to do better in school than their prototypes of the past century did. In any even, the record stands that good numbers of those who were to write their names high above their fellows were irked by the formal school procedure to which they were subjected and could or would make little progress in them. Their interests were untapped or actually discouraged by schools and teachers, and their purposes did not coincide with those which the latter had for them.

SOME MISCONCEPTIONS ABOUT THE GIFTED CHILD

There have been many wrong ideas and claims in various quarters regarding so-called "bright" children. Helen's mother, for example, having in mind her neighbor's daughter, Mary, who is reputed throughout the community to be an unusually smart pupil in school, is heard to remark: "Of course, everybody knows these

highly clever children always turn out in the end to be quite ordinary!" Tom's mother, thinking of Fred, likewise a reputedly brilliant pupil, observes: "Anyway, I'd rather have Tom keep himself healthy and strong than break his health down with study!" Peter's mother, mindful of a neighbor's son, Harold, a budding young prodigy of intellect, says: "I guess I'd rather have my Peter less blessed with brains than to have him as insufferably snobbish and know-it-all as some of those nervous, high-strung children that are always sticking their teachers and skipping their grades!" The implication is that the child who drinks too deeply of the ravishing fount of knowledge is flirting with nothing less sinister than nervous breakdown.

Still other parents will discourse at length upon the alleged cause-and-effect relationship between precocity, on the one hand, and such negative and undesirable qualities as poor health, instability, mental abnormalities, awkwardness, seclusiveness, conceit, inaccuracy, "queerness," and finickiness, on the other hand. To support this unfortunate opinion, we have the contention of a few teachers that every accelerated or gifted pupil is a potential or present liability in the schoolroom; of some physicians who advise parents that precocity in a child is a more or less pathological condition that frequently eventuates in physical or mental breakdown, or both; of the cartoonist and the wit who depict the superior person generally as an emaciated, bespectacled, white-livered monstrosity; and of the common run of children who do not hesitate to dub the gifted among them as "sharks," "teacher's pets," "boners," and the like.

EXPERIMENTAL FINDINGS

A classic investigation in the field of precocity is the study published in 1926 by Dr. Lewis M. Terman, of Stanford University.[3] This piece of research, in which careful study was made of 1000 children whose I.Q.'s were in excess of 140, has done much to clear up some of the hazy but nonetheless persistent and widespread misconceptions regarding the bright child. It was surrounded with all the conventional scientific safeguards known in order that reliable conclusions might be reached regarding the intellectual, emotional, personal, and socio-moral traits of gifted

[3] *Genetic studies of genius:* Vol. 1, *Mental and physical traits of a thousand gifted children* (Stanford University, Calif.: Stanford University Press, 1926).

children. Adequate control groups were maintained for comparative purposes continually throughout the investigation.

Were one to attempt to epitomize in a single paragraph the results of Terman's inquiry, one might characterize the typical bright pupil in some such statement as the following: The bright, or gifted, child in the schoolroom is typically above the best American standards in general physical condition, being taller, heavier, better nourished, and in better general health than unselected children; he is educationally somewhat beyond his chronological age in the knowledge and mastery he has of school skills and information; he is decidedly superior in such character and personality traits as the volitional, emotional, physical, and social, being found to be inferior to the control group in the single trait of mechanical ingenuity; he surpasses unselected children in honesty, trustworthiness, and similar moral traits; he surpasses them least in physical and social traits, most in intellectual and volitional traits, and next most in emotional and moral traits; he does his best schoolwork in abstract and thought subjects, and his poorest in such performances as penmanship, sewing (girls), manual training and gymnastics, being in these skills no better than unselected children; he is less troubled with headaches and is less nervous than the control child.

This investigation appears to have given the bright pupil a clean bill of health and educability. Why, then, is the impression so commonly abroad among us that the bright pupil compares so unfavorably in most respects with the average child? In part, no doubt, this unfortunate reputation of the superior child has been due to the commonly observed practice among so many parents of overstimulating and "forcing" these bright minds in order to make prodigies out of them. Flattered by the evidence of high endowment in their offspring, they are often guilty of promoting in them a distinctly one-sided development of intellect, to the neglect of their bodies and their sociabilities, thus raising up decidedly unwholesome, misfit personalities and often woefully underdeveloped bodies. In part, also, this unfavorable reputation that the bright child enjoys is traceable to his frequent distaste for the more concrete school activities, e.g., manual training, gymnastics, drill work, and the like, and his predilection for the more intellectual and abstract subjects. To the mass of people, still, absorption of an individual in the latter type of mental exercise implies abnormality and "queerness."

Whatever the cause of his reputation, psychologists find the gifted child be in no wise inferior in any of his traits, save possibly in mechanical ingenuity, and in most of them he is distinctly superior to his more slow-plodding cousin. If an individual is superior in one thing, the chances are better than good that he will be superior in many things.

IDENTIFICATION OF SUPERIOR CHILDREN

Taken alone, high I.Q. (130, or better) does not furnish a sufficient basis for the identification of superior children for purposes of school program or school promotion. The mere possession of high intelligence, as the tests measure it, is insufficient evidence in itself of a pupil's fitness either for an accelerated or an enriched program of studies. Along with keenness of intellect must go, in the first place, the ability to do creditable work in the various conventional subjects of study. In other words, first, *educational* potentialities as well as intellectual ones are a prerequisite for granting a pupil special educational opportunities. And second, the judgment and estimate of the classroom teacher of a pupil's probable abilities to succeed scholastically should be given much weight in initiating a program of differential education. The teacher is familiar with those character and personality traits of the individual child upon which the quality of his future work in the special curriculum will in part depend. She is in a good position to judge, too, his physical robustness, and so to predict with reasonable reliability the likelihood of his being able to do safely the more intensive work of the special curriculum.

EARMARKS OF THE GIFTED CHILD

How may the teacher recognize the bright pupil? The following check list of characteristics should prove helpful in identification:

(1) high score on an intelligence test;
(2) boredom and ennui, when there is no physical basis for them;
(3) quickness of mental process;
(4) occasional flashes of brilliant insight;
(5) liking for abstract subjects;
(6) impatience with slow and "average" children;
(7) superior vocabulary;

(8) striking unevenness in day-to-day performance;
(9) strong curricular likes and dislikes;
(10) evidence of wide general reading;
(11) superior general knowledge;
(12) keen interest and much information in some specific field;
(13) inconspicuous manual and motor abilities;
(14) frequent periods of indifference to school tasks.

None of the qualities in the list should be regarded *per se* as an index of superior brightness in a pupil. As a matter of fact, some of them are often found individually in very mediocre children. Taken together, however, they should prove for you a promising point of departure from which to observe and study any child believed to be superior in endowment.

SAFEGUARDING THE EMOTIONS OF THE BRIGHT CHILD

In his home, as we have indicated above, the superior child may be given too much stimulation by proud parents who see in him an opportunity to win for themselves vicarious distinction. To a reasonable extent, this sort of encouragement is justifiable and can do no harm. If, however, the parental pressure is so strong and so persistent that the child becomes one-sided in his development, it may result in great disappointment and tragedy to all concerned. Every child, regardless of his degree of intelligence, needs to live through all the stages of physical and emotional and social growth, in order to achieve a well-rounded personality. If he is urged to spend at his books, or in his ivory tower of whatever sort, hours that ought to be spent in growing a strong muscular body, or that ought to be devoted to play and the ordinary strenuous activities or normal, happy children, it is obvious that harmonious growth and development will be impossible for him. A child cannot live a cloistered intellectual existence save at the expense of health and socialization. Failure on the part of their parents to appreciate this important truth has been responsible for those unfortunate cases of prodigies occasionally reported in the press who, while they shot up on a promising intellectual trajectory in their earliest years, plunged back to earth and mediocrity or failure before they had actually grown up.

Many factors operate to endanger the normal emotional development of the gifted child. In the early home environment, if it partakes of the nature of hothouse "forcing" of the intellect, the child may become over-impressed with himself and may be taught

to look askance upon the common herd of children. When he gets to school this faulty home training will bear its noxious fruit, for the young genius may be intolerant of others, impatient with their slow and bungling cerebration, unconcerned over problems of the common weal, and increasingly preoccupied with his own superiority. Unless very careful guidance of him is carried on by his teachers, he may continue to grow more asocial and withdrawn with each passing year.

The situation is complicated, moreover, by the attitudes of his associates who, in traditional style, tend to regard and to treat a young genius in their midst as somewhat of a monstrosity. They laugh at him, play practical jokes on him, take his belongings, and treat him shabbily on most occasions. For these and various other reasons, teachers often come to believe that a gifted child is a maladjusted, self-centered, and socially unbearable individual. Nothing, as we have seen, could be farther from the facts of the situation. It is only when such a child has been conditioned unfavorably by his parents, or by other individuals, that he approaches the school experience ill-equipped socially and emotionally.

Fortunately, most talented young children are treated like any other types by their families, and so exhibit a normal degree of socialization and of emotional maturation at each age level. As a rule, such children have little difficulty in getting on acceptably with the other children with whom they are associated in school years. If they possess normal personality traits, they may be among the most popular and best-liked children in the group. If the school can provide them with plenty of work at their level, if it can see to it that their capacity for leadership, which is often great, is given plenty of opportunity to invest itself without affronting or antagonizing those children of less drive, and if it can supervise wisely the genesis and growth of attitudes of service to others, of responsibility to society, and of strong human interests, it should succeed eminently in keeping young geniuses unspoiled and eager.

THE RETARDED OR "SLOW" CHILD

In this classification we shall consider those children who are above the I.Q. feeble-minded dead line of 70, but who are below the lower limits of the average. That is to say, by the retarded or "slow" child we have in mind one whose I.Q. ranges from 70

to 89. From the standpoint of educability and of wholesome personality adjustments, children between these extremes present serious problems.

First of all, the dull child is a serious problem to his parents, particularly if they themselves possess normal intelligence and have other children of average ability. Usually, the inferiority of such a child is not discovered until he approaches nursery-school or even kindergarten age. If he has learned to walk at something like the proper time, and if he has not been particularly backward in the time of his learning to talk, there may be little reason for the parents to grow apprehensive over his mental capacity. When either or both of these achievements are radically delayed, the evidence of low mentality is likely to be clear; often there is no question about it. Children clustering about I.Q. 80 usually manifest no strongly telltale evidences of their below-parness much before they are four or five or even six years old.

When parents make the discovery that they have a dull child, they may react in various unfortunate ways. They may rebel at the fate that has given them an atypical offspring; they may compare him unfavorably with their other children, and almost, if not quite, resent his inferiority; they may go to the other extreme of taking up cudgels fiercely in his behalf, of blaming other children because they are bright, of blaming the school and the teachers because they are unable to work a miracle educationally in him, or of neglecting their other offspring in order to devote all their efforts to the dullard, in the vain hope that they may redeem him by their own determination. It is only the exceptional parents who will accept the situation calmly, be grateful for such lovable traits as the child may possess, dismiss rationally and unemotionally any fond ambition they may have had to see him achieve high school and college, seek the best clinical and educational prognosis available, and procure for him the type of special training that will make him vocationally independent, and that will be likely to develop in him favorable personality traits.

THE DULL CHILD AT SCHOOL

In the conventional, undifferentiated classroom, too, the backward child presents a serious problem. It is unfortunately the case that dull children do not usually get placed in opportunity or special classes until after they have dragged through an unhappy

existence in the regular class for three or four or more years. Unable to keep up with the other children, slow and laborious in their learning, they tend to hold back the general forward movement of their group. Teachers are expected to gauge their efforts to the average level of their pupils, not to the lower levels of ability represented among them. They must, however, strive to keep the dullards in line as long as possible; hence a disproportionate amount of time must be given them.

The most serious problem of all, however, is that which the dull child presents for himself. As we have said, neither he nor his parents may have any inkling of his inferiority during the preschool years. When he gets to school, however, and mingles with other children in the classroom and on the playground, he soon learns that he cannot compete successfully. The awakening he subsequently has to his true intellectual status is likely to be extremely devastating to his personality. He is always classified with a small number of children who must have extra drill, or be given extra time for their work; he cannot join aggressively and prominently in the stimulating work of the day; his report card can never be exhibited proudly, either to his mates or to his parents at home; he understands that worry about him is much in the minds of his parents, and that they are blaming him or the school for his poor showing; he hears talk about special and opportunity classes to which he should be sent; and above all, he experiences the bitterness of failure, even when he has tried to do his best. These distressing ideas and experiences provide an emotional complex that makes it extremely difficult for a dull child to know day-by-day happiness and satisfaction.

Probably the worst feature of all is the tendency of a dull child, as he progresses slowly upward through the school grades, to fall farther and farther behind. Because he cannot make normal advance within a grade, and because the educational content of each grade becomes each year more difficult, the dull pupil is forced to repeat grade after grade, so that by the time he reaches school-leaving age, he may be no farther advanced than fourth or fifth grade. In every successive room he finds himself older and larger than the other children. At ten, he is associated with eight-year-olds; at twelve, with nine-year-olds; at fourteen, with ten-year-olds. Problems of social as well as of physical and mental adjustment keep piling up for him. Prepubescent among other boys and girls who are still in middle childhood, pubescent among prepubescents,

postpubescent among pubescents, he is always a biological and social misfit.

In those school systems that frown upon repeating grades and withholding promotion, while the dull child may enjoy better physical and social adjustment, his mental and scholastic status is just as unsatisfactory. Only when he is removed from the conventional grade progression and placed in a special class with other children of his own general level of intelligence, may he escape at least some of the bitterness and unhappiness commonly experienced by dullards among normal children in an undifferentiated classroom. The inferiority he feels in the special class and the poor status he shares with others are compensated for to a degree by the greater encouragement he feels at being able to do as well as his mates and the consciousness of daily successful achievement at his own level.

THE FEEBLE-MINDED CHILD

As a teacher, you will probably have little professional contact with children who are definitely feeble-minded, i.e., who possess I.Q.'s below 70. Theoretically, such children never attend the regular schools. Actually, however, since there is nowhere else for them, some of the higher-grade feeble-minded (morons) will be found in the conventional grades. This is about the worst mistake educationally that could be made. While children in the upper 60 I.Q.'s can often profit by special class education, those below 65 ought to be in public or private institutions for the feeble-minded. None of them—not even the higher morons—can profit by attendance in regular classes. When a teacher finds such a child there, she should understand that her efforts with him can yield only dubious or negative returns. His presence among them definitely robs normal children of their educational opportunities and rights.

Feeble-mindedness in children may be the result of either prenatal or postnatal causes. Deficiency in the germ plasm of the parent and failure of normal intra-uterine growth and development of the brain and nervous system represent the principal sources from which inherited feeble-mindedness proceeds. Accidents or brain injury at birth are responsible for a considerable number of non-inherited cases of feeble-mindedness. Thyroid deficiency, as we have seen, arrested or perverted brain development,

and actual cerebral disease or abnormality occurring postnatally account for a relatively small amount of mental deficiency as children pass through the formative years. Each of the lowest types of idiocy, whether inherited or acquired congenitally or postnatally, has fairly distinguishable features and characteristics; e.g., the cretin, the microcephalic, the hydrocephalic, the mongoloid, etc. Diminishingly, the imbeciles, and above them the morons, become less readily apparent to the casual observer, since there are present fewer physical peculiarities and stigmata than are exhibited by the idiots. Victims of such diseases as epilepsy and meningitis may also display characteristic physical and behavioral abnormalities.

PHYSICALLY EXCEPTIONAL CHILDREN

1. The Dim-Visioned

The dim-visioned include those relatively few children (something like one in every 500) whose visual acuity is so low or failing so fast that they ought to be in special sight-saving classes; they include also a much more sizable group (perhaps 5 per cent of all children) whose vision is definitely impaired and who should be helped to follow a sensible program of eye conservation. Various causes contribute to low vision in children, among the more common being improper care of the eyes during measles, scarlet fever, etc., and the occasional unavoidable aftereffects upon the eyes of these and other children's diseases; strain of the ciliary muscles from too early or too long-continued use of the eyes at near work; eyestrain due to imbalanced muscles, or to uncorrected hyperopia or astigmatism; and general lack of ocular vigor from poor constitution or deficient dietary.

Regardless of the cause of dim vision, and regardless of its degree, any child afflicted with it should be treated exactly like normally seeing children, in so far as that is possible. To feel himself the object of pity, anxiety, or oversolicitude, on the part of parent or teacher, makes a child uncomfortable if not actually resentful. What he particularly needs is a kind of handling that does not appear to differentiate him from the other children in his midst. So far as practicable and safe, he should be given the same work to do as they are given, expected to produce comparable results, and be treated with objectivity. Commiseration, expressed apprehensiveness, public reference to his abnormality—these things are

not only anathema to the dull-visioned child, but they discourage him needlessly. Even those children with waning vision who have to be enrolled in special sight-saving classes thrive best on a program that is as close as possible to the conventional one.

Unquestionably, while our school health and inspectional work has gone forward gratifyingly in many communities within the past quarter century and more, there is still much room for improvement in the conservation of the vision of pupils in school. Better lighting is still achievable, both daylight and artificial. It is surprising how many school buildings there are, even in the better educational communities, in which orientation is bad, in which size and placement of windows are not up to standard, and in which direct, unshaded electric bulbs still glare above the heads of the pupils on dark or dull days. Too few foot-candles of illumination; cross-lighting from wrongly located windows; glare from varnished surfaces reflected into the eyes; walls tinted in dark shades—these conditions are inexcusable in any modern school. Even children with the best vision are subjected to needless eyestrain and ocular danger by such appointments; for dim-visioned children, they are little short of tragic.

2. *The Hard of Hearing*

Hearing deficiencies, like visual ones, range all the way from complete loss of the function, at the one extreme, to only slightly depressed ability at the other. Like the totally blind, the totally deaf probably do not belong in the regular school but should be sent to special schools for the deaf. Even so, school statistics indicate that not far from 10 per cent of the children enrolled in our public school system have some degree of hearing impairment. The causes are various, of course. In the present discussion, we shall understand by hard-of-hearing children those who during their earlier years had no impairment and were able to imitate good speech patterns. Somewhere along the way, however, they have met with auditory difficulty. Often, aural impairment has been due to destruction or abnormality wrought in the middle ear by infections that have backed up from the nasopharynx through the eustachian tube, causing inflammation, damage to the tympanic membrane, and impaired articulation of the three bones of the ear. Sometimes damaged hearing results from accidents or injury to the outer ear and the drum. Sometimes it is due to parental neglect of discharging ears following aural infection. Sometimes

it appears to follow no specific causation, but comes about as a developmental abnormality.

So far as possible or practicable, a child with poor hearing should be treated in the same manner as his normally hearing fellows. Unless the degree of his abnormality is such that he has to be segregated in a special deaf group, he should have full normal association with unhandicapped children. The stimulus he receives in contact with the normal group for wholesome living and active social participation is of inestimable value to his personality. If he feels himself to be inferior or handicapped, or senses that he is being handled as a "deaf child," or finds himself commiserated with because he is "different" or "afflicted," he develops a reserve and a consciousness of his deficiency that may have profoundly unfortunate reverberations throughout his whole personality. The other children should be scrupulously careful not to single out auditory defectives for any unwelcome attention or comments. They should, like their elders, understand the importance to these children of learning lip-reading as a help to their future happiness and accomplishments, and, if they are obliged to make use of hearing aids, they should remark the fact no more than they do the wearing of glasses by children with ocular abnormalities. If teachers and parents follow these procedures, they will shortly make the discovery that there is no defensible reason why a hard-of-hearing child should not make normal progress in all areas throughout the school grades.

3. The Crippled Child

Eliminating from consideration those crippled children whose condition is so acute that they must be in hospitals or other institutions, or who are bedridden at home, or who are able to move about only in greatly restricted areas and with the help of others, there still remain possibly 30,000 crippled children who are enrolled regularly in our public elementary schools. Some of them are victims of traffic accidents, one out of three people at the present rate being doomed to be either killed or maimed permanently at some time during his life. But crippling of children results from other causes than street and highway accidents. Poliomyelitis (infantile paralysis) is a cruel maimer of children, striking them down and leaving them often permanently crippled in their earliest years. Tuberculosis of the bones, rickets and malnutrition, weakened hearts resulting from toxic infections or from con-

genital deficiencies, falls and severe burns, are among the other numerous contributors to child crippling, which may obviously be either orthopedic, toxic, cardiac, mechanical, or developmental in nature.

Quite obviously, crippled children are sharply limited in the sphere of physical and play activity. Some of them cannot manage their legs sufficiently to participate in any sort of sustained physical program; others must refrain from activity because of delicate health or impaired heart. What little energy they have must be used in getting themselves to and from school, and in carrying on the basal minimum physical movements required in mere living. It is understandable that crippled or delicate children feel keenly their handicaps and often find it a bitter experience to observe their unhandicapped mates in joyous and strenuous activities in which they, too, once may have been participants.

The problem of handling crippled children in the home and in the school becomes principally one of encouraging them in every possible way to react wholesomely and philosophically to their condition. Whatever special apparatus, equipment, or aids may be needful for the physical comfort of these children should be forthcoming without comment and bother. If they must be helped into and out of the building or room, their plight should elicit no curious or morbid interest or sympathy, the idea being that inconspicuousness must be the order of the day so far as these types are concerned. Matter-of-factness, cheerfulness, and objectivity, emphasis upon work and play types and activities within their range of performance—these things become of prime importance in the guidance and training of crippled and delicate children. Their normal mates will help them most by refraining from display of undue curiosity over their plight, equipment, or behavior, by trying to think of them as no different from themselves, excepting for a single deficiency, and by taking their condition for granted, without obvious pity, undue solicitude, or morbid concern.

RACIAL DIFFERENCES INCONSPICUOUS

A question that has interested a good many investigators of individual differences has been the extent to which peoples from varying racial or ethnic groups are similar or dissimilar in intelligence. Are Negro children and Indian children, for example, inferior to white? Are Orientals inferior to Occidentals? A consid-

erable amount of testing of all racial groups has been carried on in the last thirty years.

Western nations generally, and our own in particular, show higher intellectual status, as measured by the tests, than do nations that have lacked the trappings of civilization and cultural development. The fact must not be forgotten, however, that the measuring-rod used almost universally to establish I.Q. has been the Stanford-Binet, or some close adaption of that test, and since tests of this sort presuppose a good language background, if not a cultural one, it is understandable that children who go to school and have the stimulation of cultural surroundings will rate higher than those who lack these opportunities.

Studies of Negro children in the deep South show their I.Q.'s to be somewhat below those of white children. Studies of American Indian children show a similar disadvantage in intellectual status when compared with that of American white children. It is easy to jump to the conclusion that the critical factor in these cases must be an hereditary one, Caucasian blood being superior to Negro or Indian. Closer analysis, however, suggests that the difference may be largely accounted for in terms of environmental stimulation and opportunity, which are obviously inferior among non-white children. As we have already noted (see page 295), when Negro children are removed from their native habitat and exposed to stimulating surroundings, they often display a striking gain in I.Q. It is quite possible that had the African Negroes lived for hundreds of years in the United States, they might be little if any inferior to white people.

HIGHER OCCUPATIONAL GROUPS HAVE HIGHER I.Q.'S

If we were to arrange the occupational groups in descending order from the standpoint of education and training required for successful membership in them, we should find that the I.Q.'s are higher among the upper, managerial or professional groupings, and that they become progressively lower as we pass downward through the economically and culturally inferior groupings, with unskilled laborers tending to rank at the bottom. Children coming from these homes of varying cultural and economic status reflect the same trend, children of engineers, managers, and professional groups having the highest I.Q.'s; those from workaday groups having the lowest. Even so, however, it is interesting to note from

many of the studies reported that there are far more striking differences in I.Q. among individuals within a given occupational group than there are between the average I.Q. scores of different groups. In other words, some children from the professional class have mediocre I.Q.'s; some from the ranks of the unskilled laborers have extremely high I.Q.'s.

STUDY OF TWINS

One other question that has intrigued many psychologists has been the effects wrought by change in environment upon identical twins. In the natural order of events, of course, identical twins grow up together in the same home and in the same environment. It occasionally happens, however, that identical twins for one reason or another are separated in infancy and reared apart, often not knowing or seeing one another for years, if ever, thereafter. We may assume that identical twins (i.e., monozygotic twins) possess identical heredity, since they develop from an original single ovum. Everybody who knows any identical twins knows how identical they seem to be in appearance and in personal traits. Tests corroborate these naïve observations even in the case of identical twins who have been reared apart. Though they are often found to differ considerably in many areas, due to differences in schooling, training, and environment, they still appear to be rather strikingly alike in many basal traits, including intelligence.

The fact, however, that identical twins who have grown up in vastly different environments are less conspicuously alike than are identical twins who grow up in the same environment, seems to suggest that heredity is only in part responsible for the traits an individual possesses; environment, too, influences them to a large degree. We have suspected this to be true from comparative study of racial groups and of family lines; it is demonstrated to be true by the study of identical twins reared apart, among whom heredity is constant and environment alone is the variable.

PERTINENT QUESTIONS FOR DISCUSSION

1. Procure a Record Sheet for use with the Terman-Merrill Revision and note the type of items included at the different age levels. If possible, the instructor should administer Form L of the test to a child, with the class as auditors.

2. Work the following I.Q.'s:
   (a) C.A.: 6 yrs., 7 mos.; M.A.: 7 yrs., 1 mo.
   (b) C.A.: 11 yrs., 9 mos.; M.A.: 10 yrs., 6 mos.
   (c) C.A.: 12 years., 0 mo.; M.A.: 14 years., 0 mo.
3. Look over the tabulation of the intelligence test results in your room and study the classification that has been made (or should be made) of the pupils.
4. Do you find that all your brighter children are satisfactory pupils? Or that all your duller ones are unsatisfactory? Explain.
5. What other traits in addition to intelligence are important in a well-rounded and well-adjusted child?
6. Procure from the instructor copies of the Pintner-Cunningham and/or the Kuhlmann-Anderson group tests and study the items included. If possible, assist in giving some group test to the children in your room.
7. Make a distribution of the I.Q.'s of your children. How does your figure compare with the Gaussian curve? How do you account for any irregularities or discrepancies?
8. Do you have any pupil whose I.Q. you have reason to fear has been depressed by unfortunate circumstances in his environment? Explain.
9. On the whole, do your brightest pupils possess the best personalities in the room and are they the best room-citizens?
10. Do you note any other earmarks of gifted children in addition to those listed on pages 300–1.
11. Have you known among the most gifted pupils you have taught any who have been subjected to overpressure by their parents, at the expense of normal physical and social development?
12. Do you find any undesirable emotional traits in your brighter children?
13. Make a brief case-study of a slow child in your room. What recommendations do you have for his best adjustment and continuing progress?
14. Do you have in your room any pre-pubescent child among pubescent children? Any pubescent child among post-pubescents? What difficulties emerge?
15. Do you know any feeble-minded child? Do you know the probable cause of his deficiency? The type? What disposition is being made of him?
16. Who among your children test at 20/30, or lower, in either or both eyes? What efforts are being put forth to help these children to conserve their vision in the schoolroom?

17. Do you have any noticeably hard-of-hearing pupils? How are you endeavoring to make their lot as comfortable and satisfying as possible?
18. Do you have, or know, any crippled child? What is the nature of his handicap? Is he progressing satisfactorily in his schoolwork? Is his mental adjustment to his condition hygienic?
19. Do you have any data from study of your own children to indicate that those with better I.Q.'s represent homes in the higher occupational groups, and *vice versa*?
20. Do you know any identical twins? Have they been reared together or apart? Do they closely resemble one another in most traits? How do they compare in this respect with fraternal twins?

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CHAPTER 12

MEANING AND PERCEPTION

Some Children To Identify in Your Room

A child who . . .

(1) is in the exciting stage of beginning to recognize words;
(2) seems to justify Hall's findings about contents of children's minds;
(3) seems to negate Hall's findings;
(4) is in the "Why?" "Where?" stage;
(5) shows keen social perception for his age; one socially imperceptive;
(6) is building perceptual knowledge through wide sensory impression;
(7) is manifesting involuntary attention; one manifesting voluntary;
(8) has a long attention span for his age; one having a short one;
(9) makes good use of a perceptual cue;
(10) has a distorted perception of some stimulus;
(11) has an unusual color sense; one with weak color perception;
(12) is in the process of learning to tell time by the clock;
(13) manifests grotesque misjudgment regarding duration of time;
(14) shows characteristic child misjudgment of space and extensity;
(15) has a keen dawning money sense; is lacking in such understanding;
(16) probably has too much spending money; one who has too little;
(17) shows faulty perception of geographical or historical items;
(18) seems to have associated one meaningless term with another meaningless one.

FIRST-GRADE SCENE

Miss L. had gathered about her in front of the first-grade room eight children who were ready to begin reading. In the intriguing way most first-grade teachers have, Miss L. elicited from each one

of them a dramatic little tale of what he had done or seen that had made him feel particularly glad or happy since last Friday. As many eager contributions were forthwith made as there were children in the group. The teacher chose one of the "stories" to put on the blackboard in the front of the room. Taking special pains to interpret each little story as she printed it, and using large letters, this is what she wrote:

Harry went to see Grandma.
It was a beautiful day.
The sun was bright.
Harry was glad to see Grandma.
Grandma was glad to see Harry.
Grandma gave Harry a cookie.
Harry ate the cookie.
He said: "Thank you, Grandma."
Then Harry went home.

This being the first experience the children had had in interpreting the meaning of words and sentences, it is obvious that when they tried to read the story afterwards, sentence by sentence, they made a good many mistakes. The teacher went over it with a pointer, sweeping it from left to right along a sentence, and then asking the children to repeat it with her. After each sentence, the same procedure was followed. Sometimes she would call on Mary to read the sentence all alone, and Mary would try hard to read the line correctly. Sometimes she would call on Tom; sometimes, on Henry; sometimes, on Alice. After all the lines in the story had been read and reread, by the group and by individuals, the teacher passed the pointer to Harry, and said: "Harry, I wonder if you can show me the story that says: 'The sun was bright.'" Harry was as likely as not to run his pointer confidently along the line that said: "Grandma was glad to see Harry" or along any other line. All the other childen made the same errors at first. But after fifteen minutes or so had elapsed, and the teacher had gone through the entire story again with the children, several of them could associate the written line with the spoken line correctly; all of them could recognize individual words.

As a variation, the teacher next said: "Now, I'm going to erase one of the lines and ask you to tell me what the line said. Watch carefully, for I may catch you!" Then, after a momentary poising of the eraser above the line "Harry ate the cookie," and a repeated

warning to watch carefully, Miss L erased the line. Eight hands waved frantically in the air. "Well, Tom, what did it say?" she queried. "It said: 'Harry was glad to see Grandma!'" exclaimed Tom. Several hands still waved animatedly. "Mary, what do you think?" "I think it was: 'The sun was warm.'" Waving hands again—six of them. Alice got it right, whether from associated knowledge or from chance. "That's *right!*" exclaimed Miss L, "Alice got it right, didn't she? Now, I'm going to erase another line. Watch carefully!"

The above is a typical primary situation in which children are being introduced to the fine art of reading words and sentences. If you will stop to analyze the situation for a moment, you will realize that what Miss L was doing was to provide her eight children with drilled experience in recognizing the meaning of words, or symbols. Previous to and apart from such repeated exposure to word symbols, a child obviously sees no meaning in print. Very much of the effort in early reading must be devoted to building up in the child's mind the association between a printed or written symbol and the object or idea for which it stands. When this associative process has been established meaning becomes attached to the symbol.

THE MIRACLE OF READING

Some time ago the author was sitting in the rear of a first-grade room observing the children as they came in, just before nine o'clock. He had been in the building many times before, so that he was not a stranger to them. Shyly, at first, but with a nascent pride in her achievement, one six-year-old girl came up to him and invited him to hear her read. Turning about and leaning against his knee, the child started in, holding the book where both could see. Glibly and flawlessly she read, though the words she used did not agree exactly with the printed words in the primer, and though as the author watched the child's eyes he noted that they were roving about a good deal instead of being focused on the page! The general sweep of the story, however, as she repeated it, was faithful to what was recorded. Before she had completed half a dozen sentences, a queue of other children had lined up in front of her, each with his book outstretched and each waiting his turn to "read" to the visitor.

Such is the fascination of reading to children who are just be-

ginning to push back the veil of mystery that conceals the meaning of words. Long before they can recognize each individual word in the story, they can recognize enough of them, or guess at enough of them, or recall sufficiently the general meaning of the story, to "read" delightfully if not too accurately.

We have chosen to begin this discussion with an illustration of the goal of reading drill, that is, the understanding of words and phrases and sentences of a symbolic nature. We might have taken any other area of experience to exemplify how meaning is achieved, for all meaning must depend definitely upon experience. Without experience, be it direct or vicarious, there can be no understanding. If one were to imagine a situation in which a child grew up in a social and experiential vacuum, he would have to visualize a human being for whom nothing had any meaning beyond the bare details of taking and eliminating food. Of the objective and the dramatic world that impinges upon us all, he would continue to be totally oblivious and ignorant; and if he were to be suddenly set down in the midst of people, events, and objects, he would be as mystified and helpless as he was in infancy.

EARLIEST MEANINGS

The earliest meanings the child struggles to master are those inherent in simple, concrete objects and in simple, but for him, dramatic events. During the first month of life, the baby looks out upon a vague, blotchy world in which few objects stand out sharply. This is in part due to his low visual powers; in part also, it is due to the disorganization of his nervous system. By six months of age, the objective world has cleared up, but he probably sees sharply only one element in a total visual situation, e.g., his bottle, held before him by a shadowy form which he sees only dimly unless he turns his eyes directly upon his mother. By nine months of age he begins to understand vaguely the significance of depth, proportion, and perspective, though he can by no means yet distinguish between "nearer" and "farther." From his recumbent position in his play pen, at a year and a half, he looks out upon a distorted world of unsymmetrical proportions. Everything looks big to him; objects are greatly foreshortened; a table towers above him; feet and legs walking past him appear gargantuan.

Throughout the entire earlier period of childhood, the infant is striving valiantly to bring order out of the chaos and confusion

that surround him. He explores optically and manually; he sweeps everything available into his mouth, for all the world like the tea-taster grading tea; even his toes find their way into his eagerly testing and exploring mouth; he gasps and squeezes and pokes; he pulls apart and weighs and compares; he tosses and bounces and throws; he tastes and smells and pinches; he pats and pulls and pushes and bangs. And out of this incessant manipulation and gustation and olfaction and kinesthesis he comes shortly to attach meanings to the things that make up his immediate environment. Bottle, table, mama, dada, spoon, ball, apple, teddy, kitty—all of the concrete objects that impinge upon his eager senses become increasingly meaningful to him. Before he can walk alone, sometime early in his second year, he can discriminate strangers, study his image in a mirror, make some attempt to imitate scribbling and saying words, turn a doorknob, look at pictures, distinguish between cup and plate. Within the next twelvemonth, by the time he is three years old, he can talk perpetual gibberish, explore the house and yard, run about excitedly, build block towers, copy a circle, button one or two buttons, feed himself, and begin his peregrinations with a tricycle.

In these and innumerable other concrete and objective experiences, the young child comes rapidly into communicative understanding with his world. Of ideational or abstract meanings, however, comprehension proceeds much more slowly. Sight and sound and touch and taste and feel are relatively simple because of their objectivity. "Mama" means the individual who makes him comfortable, feeds him, etc. Of the abstract concept "mother" or "woman," he has no comprehension in these years; neither does he of "father" or "man"; nor yet of right and wrong, of good and bad, of honest and dishonest, and the like. These achievements must come about laboriously with the passing of time and the accumulation of approved and disapproved moments of conduct. Social perceptions depend more upon language and communication; appreciation of the mores and action that coincide with propriety, morality, etc., must wait upon further maturation and wider social experience.

THE CONTENTS OF CHILDREN'S MINDS AT SIX

In a classic study, "The Contents of Children's Minds on Entering School," made in 1883 by the late Dr. G. Stanley Hall, it was

concluded that the typical child, when he first enters school, has a mental content whose value is almost zero as a basis for beginning formal learning. Hall wrote: "It seems not too much to infer that there is next to nothing of pedagogic value, the knowledge of which it is safe to assume at the outset of school life. Hence the need of objects and the danger of books and word cram . . ."

A much more recent study is that by Probst, in which a check was made of the information possessed by 100 Minnesota children, from five years, four months to six years of age, at the time of school entrance.[1] They were selected judiciously to represent a cross section of childhood in Minneapolis, where the study was made. The majority of school entrants in Probst's study could answer satisfactorily the following questions:

What is the Mississippi?
What do they make in the Ford plant?
What time of year do flowers grow outdoors?
What time of year is the weather cold?
What day comes after Sunday? After Saturday?
How many hands has a clock?
Who is Andy Gump? Skeezix?
Who was the first president?
What are the colors in the flag?
Of what is snow made?
What makes it warm in summertime?
What color are the keys on a piano?
Whom was Red Riding Hood going to see?
What did Jack and Jill do?
With what do you play a drum?
When the three bears came home, whom did they find in bed?
How many legs has a horse?
From what are little chickens hatched?
What do bees make that we eat?
How many horns has a cow?
How many stones in a peach?
What must we plant to have flowers?
What do we eat that grows under the ground?
To whose office do we go to get a tooth pulled?
What does a plumber do?
What is a shoe made of?
Who brings letters to the house?
What do we call a man who raises corn and wheat?

[1] C. A. Probst, "A general information test for kindergarten children," *Child development monographs*, 2 (1931), 81–95.

What is the outside of an egg called?
What is a vacuum cleaner used for?
How do we get water out of clothes before hanging them up to dry?
For what is baking powder used?
What do we use to put a screw into wood?
What is a thermometer for?
On what do people play hockey in the wintertime?

There were, of course, many other queries answered correctly by the majority of the 100 children. All the questions asked presuppose that a child will have had observational experience in the general home and neighborhood background before he enters school. It was interesting in the same study to note the queries that could not be answered correctly by most of the children. These included the following:

What large city is close to Minneapolis?
Tell me the name of a hotel in Minneapolis?
How many pennies in a dime? In a nickel?
How many eggs in a half dozen? Dozen?
What o'clock is it at noon? Midnight?
What people lived in America before the white man did?
Who are Hoover, Coolidge? Al Smith?
Where does the sun rise? Set?
How do you play a cornet? Saxophone?
What is a baby cow called? A baby horse?
What color is a crow?
What color are buttercups?
What do we call a flower before it opens?
What do we call the part of a plant underground?
What is the outside of a tree called?
What is butter made from? Paper?
Where does coal come from?
From what animal do we get bacon? Wool? Leather?
How are trees made into boards?
What is sandpaper for?
What makes a sailboat go?
In what game do you have a touchdown? King row? Use a racket? Have a home run?

While there are some inconsistencies in the two lists, it appears that six-year-old children before entering school have faulty geographical or locational concepts, limited counting abilities, uncertain

time concepts, little information or understanding about political figures and personalities of the day, limited information about animals and nature topics, and little understanding of games and popular sports. It must be remembered, of course, that only 100 children were included in Probst's study; the results might vary greatly in either direction if a larger number of subjects were queried, or if children in other sections of the country, or children living in rural communities, were included.

One universal way in which young children obtain information and understanding is through questioning their elders. If you have ever had any extended experience in caring for or associating with four-year-olds, you will hardly have failed to remark the incessant questioning they carry on. Parents and older companions often become bored by the continuous requests for information and explanation that assail their overtaxed ears. Following is the gist of a dialogue between a girl four years and seven months of age, and her mother. An iceman had stopped his truck up the street and was chipping some ice:

Alice: Iceman, mummy—see?
Mother: Yes, he's delivering ice.
Alice: Where did he get it?
Mother: In the icehouse I guess.
Alice: Is the icehouse like our 'frig'rator?
Mother: No, it's a big house where they have ice.
Alice: Does it freeze?
Mother: Yes, all ice is frozen.
Alice: What makes it freeze; isn't it warm in the house?
Mother: Yes, but they have to make the ice.
Alice: How do they make it?
Mother: In big tanks.
Alice: What's big tanks?
Mother: Big boxes where they freeze the ice.
Alice: What makes ice?
Mother: The cold. It freezes.
Alice: Doesn't the sun shine in the big boxes?
Mother: No, I guess not. They're kept where it is dark.
Alice: Can't you see them?
Mother: Yes, they have lights, I think.
Alice: Do you like me, mummy?
Mother: Yes, dear, bushels and bushels.
Alice: What's bus'els and bus'els?

SOCIAL PERCEPTION

In addition to being confronted with the necessity of discovering meaning in the world of objects and things, the child is faced also with the baffling problem of interpreting faces and gestures. Almost from the first days of life, he observes heads that nod "yes" and shake "no"; faces that smile, and faces that frown. It is a far cry from the baby's bewilderment at these early gestures and grimaces to the adult's ability to "size up" the countenances and demeanor of people he meets or associates with, and to proceed accordingly. It has been found experimentally that, at the kindergarten age, most children can recognize and name laughter on the pictured face of an actress showing merriment; that far fewer can recognize pain, fear, and anger; and that none of them can recognize surprise and scorn. The majority of children are seven years old before they can identify anger; ten before they can recognize fear; and eleven before they can identify surprise. It is obvious, of course, that in actual *vis-à-vis* situations with their own parents, and in the familiar faces of the members of the family, children learn much younger to recognize warning expressions, encouraging nods and permissions, impatience, shrugs of indifference, glares of suspicion or of condemnation, and the earmarks of a gathering storm. Unquestionably, just as in the case of some adults who are blissfully impervious to facial expressions and who barge ahead regardless, or who cannot detect warnings, disgust, and the like, or who play the maddening role of bulls in china shops, some children are socially more obtuse in their perceptions than are others.

Largely, of course, it is through the continuing associations among children that the individual child grows in his social perceptivity. Children proverbially wear their hearts on their sleeves and tend to display their emotions openly and plainly. Playing about with his mates, a child comes daily and hourly in contact with facial expressions that register now anger, now joy or delight, now mischievousness, now disgust, now dislike, now resentment, etc. His own face, concurrently, registers analogous tokens of his inner feelings and emotions, so that through this mutual display each participant grows in his powers of recognizing and reacting appropriately to all sorts of juvenile facial barometers. It is doubtless true that children are more keenly perceptive socially in situations in which the *dramatis personae* are other children than in situations,

in which adults—and particularly unfamiliar adults—have to be understood.

IMPORTANCE OF SENSORY ACUITY

Basal to the normal evolution of social perceptivity in a child are normally functioning sense organs. Obviously, if the sensory pickup is faulty, which registers in a child's mind the details of those stimuli that press upon his receptors, meanings and interpretations will be imperfect and unreliable. We have referred before to the significance of prompt attention to vision and hearing, when either becomes impaired, and to the need for conservation of eyes and ears throughout the school period. From the point of view of the present discussion, these matters have strategic importance. From the earliest months of his life, when a child is beginning to sort out and to clarify his experiences, he is completely dependent upon the faithfulness with which they are distinguished sensorially. Imperfectly sensed, or sensed in distortion or jumble, they cannot be registered faithfully in the interpretative centers of his brain. To the myopic eye, there is no bird on the branch; to the astigmatic, words run together and lines of print superimpose themselves upon one another bafflingly; to the dull of hearing there is no rustle in the grass, no hum of bees, no whirr of wings, no pulsation of life.

THE GENESIS OF MEMORY EXPERIENCES

As soon as a child has had sensory impressions, he has a basis for memory; without, or previous to, the former, the latter is impossible. It is interesting to note the role of simple memory in very young children. First, the baby sees the mother preparing his bottle; then, from that same bottle, comes a warm satisfying flow of food into his mouth. Traces of these impressions are left in the baby's armamentarium of ideas, and thereafter the sight of the bottle, and of the manipulation of it by the mother, elicits lip and torso movements of satisfaction and anticipation. Slowly but surely the infant is beginning to make associations with sensory data and to interpret meanings. Indelibly in his memory remain the simple images of past objects and situations experienced.

The same sequence follows sensory awareness of all other stimuli that pour into the child's receptors. A large, furry cat walks across the baby's line of vision, for the first time, as he lies on his mattress.

Wonderment and curiosity are mingled in his facial expression as his eyes follow her about. He may reach out his hand and feel the soft hair; he may hear her "meow"; he may hear her purr, or feel her warmth as she lies down beside him; he may hear her called "Kitty" by his mother. Later still, he may try to lift her and may feel her sharp claws. Through all these sensory avenues he is building up an interpretation of the animal, and from the impressions left as images he has a basis for further interpretation and further clarification of his earlier ideas.

It is hardly to be wondered at that little children have faulty perceptions. Their earliest sensory impressions are partial and incomplete; they can take in but a small sensory morsel of the whole scene or object; they have an extremely limited interpretative background left by memory of previous contacts with the same or similar stimuli. Only by dint of many repeated experiences, supplemented by many interpretations and revisions of former interpretations, can a child ever achieve a reliable and acceptable fund of perceptual knowledge about anything.

In all this process of arriving at perceptual knowledge, the part played by memory is an important one. Unless the child retained some traces of yesterday's contacts with bottle, kitty, kiddie-kar, mama, daddy, ball, dog, etc., he would have to start out all over again from scratch each day when confronted by any of these objects. Because each of them has left a memorial trace of itself in his nervous system, however, he has acquired the beginnings of an interpretative nexus that makes each succeeding contact more meaningful. As experience succeeds experience, obviously, earlier impressions and interpretations will become inadequate. There must be a constant refining and revamping of meanings and interpretations of objects, events, and experiences as time goes on. You can appreciate something of this transformation in apperceptive background that has taken place in your own understanding of say, "automobile" from your initial comprehension of it as a baby "being taken for a ride" in one, to your present background of interpretation of it in terms of motor and transmission and carburetor and starter and generator and differential, etc.

CHILDHOOD MEMORIES

Certain experiences children have stand out in memory sharply for many years, and some of them even for a lifetime. Others are

forgotten very soon, never to be revived. There must obviously be some reason for the long and clear retention of such childhood experiences as are remembered. They are relatively very few in number, particularly those that occurred under three years of age. For the most part, the first three years of life are shrouded in quite as much oblivion as are the months of intrauterine existence prior to birth. Save for one or two memories of your own earliest years, you can probably recall nothing of them. And in the case of the few that stand out still vividly in your memory, it is questionable to what extent they represent pure memory images and to what extent they have been magnified by parental reminiscence and prompting.

Still, there are unquestionably a few early happenings, reaching back into the third year of life, that cling persistently to the otherwise bare walls of childhood memory. In general, remembered experiences from this early age were tinged, at the time of their occurrence, with strong emotion. Sometimes the emotional concomitant was highly pleasant and exciting or exhilarating; more often, unfortunately, it was as utterly unpleasant or frightening. Among the pleasant memories are those concerned with a trip or a visit, a gift greatly desired, the birth of a brother or a sister, the arrival of an aunt or an uncle or a grandparent, "visiting" school with an older sister or brother, etc. Among the unhappy memories are those connected with an accident or an illness, the loss of a favorite pet, being frightened by a person or a story or an event, a fire in one's home, a particular punishment, and the like. Beyond a very few outstanding memories of extremely pleasurable or extremely painful happenings, few grownups retain any of the uncounted thousands of everyday, routine experiences with which their first three years of life must have been filled. Important and interesting as were the day-by-day occurrences at the time when they were taking place, filling as they did the long, active days of early childhood, they have left no memorial traces by which to reinstate them two or three or more decades later.

ATTENTION OF CHILDREN

The central factor in sense-perception is the ability of the mind to attend to the stimuli that are being received for interpretation. By their very nature, the major sense organs, if they are functioning normally, react mechanically to the stimuli that impinge upon them, whether they be light waves, color waves, or auditory waves.

The mere discharge of such waves insures that they shall be picked up, translated into nerve currents, and transmitted to the appropriate interpretative center or centers of the brain. From that point on, the subject may elect to continue to keep them in focus and to attend to the ideas and associations they arouse, or to neglect them and turn his attention upon other stimuli or other ideas. Specifically, a five-year-old playing in the yard, may, when a moving van backs into the adjoining yard, leave his ring-toss game, or his ball, to watch with some fascination the unloading of the van. He may become so absorbed in this attentive act that rings and ball are completely forgotten for half an hour or longer, depending upon the challenge the new stimuli have for his attention.

Some stimuli, by virtue of their uniqueness, or their intensity, or some other inherent quality, may be prepotent in compelling attention involuntarily. Thus, a sudden loud whistle, or a dazzling light, or hearing one's name called, will have attentional priority over less exciting stimuli. Neither child nor adult can close his eyes or his ears to sensory materials of this order. Other stimuli, because they are interesting or appealing in themselves, are likewise easily attended to. They do not require to be intense, or loud, or bright, or unusual. Thus, a seven-year-old never wearies of tag games and scrub baseball and button, button. Whenever activities of this sort beckon, children do not need any other stimulus to drive them into eager, hilarious participation in them. Still a third type of stimulus, the least compelling of all, is one that is neither intense, nor appealing of itself, but is dimly (or plainly) understood to be important for the individual to direct his attention upon. In this category belong preparing poorly motivated lessons, listening to instructions about errands to be run, raking the lawn before running off to play, helping mother do the dishes, etc. In order to focus the mind on such performances as these, the child has to use voluntary (or forced) attention. This is, of course, the hardest of all kinds of attention to maintain at any age.

Little children are more or less at the mercy of stimuli that arouse involuntary attention. To the hissing radiator, the banging door, the swaying vine, the flickering pattern of shadow and light on the wall, the colored ball, the moving cat or dog, the glittering trinket, a child's eyes and ears are drawn inevitably. Lacking any adequate interpretative background for any of these experiences, he must not only attend slavishly to them as they individually occur, but he must continue to be attracted to them for a considerable period. Only

when some other prepotent stimulus becomes more loud or bright or insistent, can he turn away. The earliest months of the infant's life are largely consumed with this wondering, slavish attention to the bright and the moving and the loud and the contrasting and the unique.

By school-entering age, a child has had so many experiences with stimuli of this sort that they no longer dominate his attention. Like his elders, he has learned to take prepotent stimuli in stride and to pull himself away from them fairly promptly. True, he will never be able to ignore a shrill whistle, shrieking brakes, blinking lights, neon signs, a plane overhead, a call of "Fire!" and the like. Indeed, it would be disastrous if a person ever reached a point in the control of his thoughts where such powerful stimuli as these could be completely ignored. Still, the six-year-old can, in spite of characteristic perviousness to intense stimuli that recur constantly, carry on his play activities with much unconcern for the roar of traffic in the street below, or the shouts of other children in another part of the yard, or even sometimes for the repeated summons or reproofs of parents. He can, moreover, in addition to maintaining attention upon interesting and appealing activities for long periods of time, pay increasingly faithful attention to tasks and duties that are not in themselves appealing or pleasant. He is able, in other words, to pay voluntary attention.

A word should be said, however, regarding attention span in the primary child. The duration of attention at the six-year level is, at best, only fleeting. Even in intriguing kinds of activity, such as games, for example, the child at this stage can maintain interest for only a relatively brief period. As we have previously noted, he tends to tire rather soon of the same kind of play activity and seeks to modify it or terminate it after a few minutes. Only as he passes into middle and later childhood is he content to play the same game for hours at a time.

Still shorter is the attention span of a six-year-old for stimuli that require voluntary attention. It has not been by any blind accident that the contents of early primary education has been kept on a far more broad and varied interest level than has been true at any other round in the educational ladder. The school program for any day in the first grade presents to the child a series of pleasant, interesting activities that tap principally his powers of spontaneous attention, necessitating only occasionally and fleetingly the focusing of voluntary or forced attention. Teachers who expect young

children to apply themselves voluntarily to the materials of learning for more than occasional moments should not be surprised to find them shortly losing interest in their work, leaving their projects unfinished, and turning away to other more intriguing and more inherently interesting fields of effort.

We should perhaps now, in the interest of clarity, restate the elementary psychology back of meaningful or perceptual learning. First of all, mechanical stimuli arouse the sense organs to activity. The more sharp and violent the arousement of them, the more helpless the subject is to ignore them and to continue attending to something else. If none of the in-pouring stimuli is prepotent, the subject is free to select for his attention such of them as attract or interest or challenge him. If he is mature enough, he may focus upon a situation that appears to him to be essential for his welfare, or in his line of duty or responsibility, and hold somewhat tenaciously to the problem or problems involved. Regardless of the nature of the stimuli, their arousal of the sense organs causes nerve impulses to reach the appropriate brain areas, where they are brought into interpretative relationship with other previously experienced sensations of a similar sort. In the highest form of mental activity, sustained attention must be devoted by the subject to a piecing together of the elements of perceptual experience and the resulting achievement of clear understanding and interpretation. Thus do perception and attention cooperate in bringing about meaningful knowledge. One cannot perceive without paying attention; and if one pays attention one cannot but be engaging in a perceptual process.

CUES IN PERCEPTION

Building up an interpretative background in any area is a slow process for the child. Take the ordinary words, for example, used by his father and mother in conversation. For months he can only stare in bewilderment as they chat together in his presence. His security in the early months arises not from his comprehension of the meaning of what they are saying, but rather from the assurance he feels in hearing their familiar voices. His sense organs are satisfied; interpretations will come later. You have probably heard parents, suspecting that their child was beginning to interpret meaningfully certain words, spell them out when conversing, in order to keep the child in the dark as to exactly what is being discussed: "Bobby

heard a man s-w-e-a-r this morning." "I think I'll make some c-a-n-d-y this afternoon."

In the mind of the baby, hearing for the first time the ringing of the telephone bell, there is no meaningful association, but only a loud auditory sensation. To the ten-year-old boy, waiting impatiently for a call from his chum, the ringing bell is a cue that sets off myriads of meaningful associations. "It's Fred—he's got home—I wonder if he can come over tonight—We could finish the airplane model—I mustn't forget to tell him to bring his knife—Ring! Ring! —I'm coming as fast as I can—If that guy hangs up on me!—Hello, is that you, Fred?" All this precipitate train of thought, this chain of association, set off in a boy's mind by a jangling bell! The ringing telephone has become a cue sufficient to arouse a greatly enriched interpretative background that is utterly lacking in the baby having his first experience with this particular stimulus.

As experiential backgrounds grow in every area, perceptual cues become more and more significant. This holds true not only in the perception of objects but also in social perception. For example, noting a certain characteristic expression on his mother's face, the four-year-old will stop racketing around and will grow very circumspectly quiet—at least for the moment. Noting another quite different but also characteristic expression on the same face, he will act up the more dramatically or grotesquely. In the one case, he perceives the facial cue to mean warning, disapproval, reproof; in the other, he perceives it to mean encouragement, approval, enjoyment. In neither instance did the mother need to say a word, or move a finger, nor did the child need to pause to cogitate over the situation. Increasing experience with the mother's moods and expressions has given the child such a reliable background of understanding that only a single cue is necessary to set off the appropriate line of associations. Similarly, he reads plainly in the same face the language of anger, fear, joy, endearment, pride, disappointment, and the like.

Similarly, too, a child learns to perceive gesture cues. A shake of the head, or a nod; the pointing or beckoning of a finger; a shrug of the shoulders; a pursing of the lips; an impatient tapping of the fingers; a gleam in the eye; an inclined ear or cheek—these all have significance for the child as his observation of and experience with his mother continue to broaden and deepen. Imitatively, he appropriates analogous facial expressions, gestures, and mannerisms as he endeavors, in turn, to influence or to control his mates.

By the time he gets to school the child is quite proficient not only in the interpretation of facial and gesture cues, but also, increasingly, in the ability to proceed from simple objective cues to wider meanings and associations. Indeed, much of the work of primary teachers is concerned with helping him to organize experience around such cues. For example, the word "d-o-g," originally associated with a colored picture of a dog, becomes the cue shortly that immediately arouses in his mind whatever associated ideas and experiences he may have had with dogs. "R-e-d," originally associated with a block of pigment or crayon of that color, becomes a cue adequate to arouse in his mind whatever knowledge of "redness" he may have. So with all word perception in language study. Words, punctuation marks, capital letters, etc., all become cues that, when encountered, set off the interpretative background. Similarly number symbols, *e.g.*, "1," "2," "5," etc., may be thought of as cues; so may also time symbols, like "two o'clock," "noon," etc., that call forth in the child's mind such interpretative processes as may have been previously built up in connection with the time of day. Still later, historical symbols, like "The Father of His Country," "Columbus," etc., become cues that may arouse potentially all the background of information a child possesses in a specific area. Geographical symbols, like "east," "north," "Equator," "tropics," "Rio," "Alps," etc., serve likewise as cues to set off associative chains that have been linked together by study and ideational experience.

DISTORTED PERCEPTIONS IN CHILDHOOD

When one's interpretative background is meager, as is necessarily the case in childhood, it is obvious that many errors will be made in interpreting experience as it comes along. With limited backgrounds in all areas, and with mounting experience every minute of the day, the wonder is not that children make so many errors in perceptual judgments, but rather that they do not make many more! They have vivid imagination, besides, which makes accurate perceptual interpretation still more difficult. A passing automobile may be adjudged to be going "a hundred miles a minute"; a kite riding above the ridgepole of the house may be "a mile up"; a gurgling faucet, not completely shut off, may have "a bad cold"; a drifting cloud may be "just over the treetop, almost touching it"; a surly dog may be deemed a playful one; and so on.

Often the explanations given facetiously or guardedly by adults

may be accepted for the time being as true and adequate. Thus, "baby brother came in a bag of flour," "the moon is made of green cheese," "the ragman puts naughty children in his big bag," it rains "when God pulls a big shower-bath chain in the sky," the airplane flies because "it has wings like a bird," the locomotive "pants and puffs because it is tired pulling the train so far," are specimens of inadequate or distorted perceptions that may satisfy for a time the curiosity that children have to understand the stimuli around them. With wider experience, the refining of the imagination, and the growth of reasoning power, these perceptual errors largely correct themselves.

A striking example of the readiness with which perceptions may be distorted is the tendency for a child to single out one unusual or striking feature of the stimulus as a focus of attention, with disturbing effects upon his understanding of the total situation. This may be, perhaps, most clearly illustrated by the way in which a child will stare at any deformed person, or anyone who has a physical defect or peculiarity. A harelip, for example, encountered in another child or in an adult, will focus the attention of the five-year-old sharply, and this fixation of gaze will recur intermittently for as long as the atypical individual is present. So, too, attention will be fixated upon a person who walks with a limp, or who has a short leg, or who wears thick glasses, or who has a hearing aid, or who has lost a finger, or a hand, or an arm or leg, or eye, or who is hunch-backed or crippled. These departures from the universal pattern are so compelling to the child's insatiable thirst for information about his world and the people in it that they cause his gaze to be riveted characteristically upon any individual who digresses from the expected and the familiar.

PERCEPTION OF COLOR

Bright, strong colors appeal to children. Long before they can name them, or even match them, they are intrigued by colors. Two-year-olds, while enjoying red and green and yellow balls and blocks and other toys, can neither call the colors correctly (about one judgment out of four being correct), nor match one colored square with another identical one placed among confusing squares of other colors, although they are more successful in matching than in naming (possibly nearly 50 per cent of matching judgments being correct). By the time they reach school-entering age, almost all

children can match colors successfully, as well as name the more common ones correctly. Obviously, during the years from two to six, children play a great deal with colored toys and crayons, and are likely to be encouraged by other members of the family to learn to say the different color names accurately.

Most children prefer gaudy, intense colors to mild and unsaturated ones. They also seem to prefer the primary colors to secondary or derived ones. You will recall from the previous discussion of children's sketching (see Chapter 9), that much of the earliest coloring they do is in reds and greens and yellows and oranges and purples. Later on, with the development of more aesthetic judgment, many of them, though by no means all, reach a point where they can employ delicate colors and hues rather pleasingly, especially with brush and water colors. Many ten-year-olds, however, seem not to depart very radically from the more primitive and vivid color preferences of earlier childhood. Strangely enough, as we have seen, there is often a kind of primitive, savage harmony even in the clashing and lurid coloring that many children employ in their drawing and sketching.

Association of various colors with social connotations is learned early, particularly those employed in traffic signals. Through riding in the family automobile, with the attention the driver must pay to the lights, and the explanations of them that are given to the inquiring child, through warnings by parents, nursery-school and kindergarten teachers not to cross on red, but to wait for the yellow or the green, and through the exchange of information and experience among the children themselves, most of them arrive at the first grade with at least a healthy respect for red and yellow and green lights. If by chance any of them are lacking in information regarding them, they are soon provided with it through teacher talks, practice drills, traffic drills, dramatization of safety rules, and the like. Associations of colors with moods, convention, etc., come much later in the perceptual experience of the child. Thus, red as a warm color, green as a cool one, purple as imperial, black as mourning or depression, blue as symbolic of loyalty, white of purity, and the like, can be learned only as abstract concepts are mastered. Children achieve these ideational goals slowly as they pass through the intermediate grades; the more abstract may not be arrived at until the upper grades, or in some cases even not until adolescence.

PERCEPTION OF TIME

Very little children have no comprehension of and still less interest in time. All the story-teller has to do is settle back in her chair and begin her narrative with the timeless phrase: "Once upon a time . . ." There will be none in the group of listeners to challenge her; none to inquire "just when" it was; none to worry over sequences and chronologies. The life of the race as crystallized in story and tale is essentially timeless; so also is the far outlook of boys and girls who listen. Deep calleth unto deep, and there are no anachronisms to bother or challenge.

Before he arrives at school age, the child has, however, been intrigued by the problem of time. He realizes that the clock on the wall or mantel is an object much in the foreground of his elders' consciousness, especially at certain hours of the day. Without being able himself to "tell time," he comes early to understand that the clock appears to preside over many of the routine activities of his and his parents' day. Naturally, he develops a good deal of curious interest in it and may frequently ogle it and carry on intermittent monologues regarding it. Imitatively, his vocal apparatus can pronounce many of the hours and minutes, though he cannot identify any specific combination of hour and minute hand on the face of the clock. He may vouchsafe grotesque information, sought or unsought, as to the time of day it is, "twenty-'leven minutes of six," for example, at midday or mid-morning or afternoon! So intrigued does he early become over clocks and watches, that he greets the gift of a watch—dumb or ticking—as a priceless boon at five, or at six or even at seven, though dumb ones lose their appeal usually by school entrance.

Some children learn to gauge their starting for school by noting the proper position of the clock's hands, "eight-thirty," for example, being perceived not as a specific hour of the day but rather as a specific pattern of the hands of the clock at that time. Similarly, "noon," or "time for lunch," may be perceived as a different pattern of the clock's hands, when both point straight up to the top of the room. "Time for bed" for many a five-year-old is perceived to have arrived when the big hand points straight up to the ceiling and the little hand has the position it always has when mother says, brusquely: "Seven o'clock: time for bed!" Occasionally a child, desiring perhaps nothing more ardently than to "sit up late," will

regard the approach of the zero position of the clock's hands with diminishing enthusiasm and, if inadvertently his mother allows them to slip past the customary position without summoning him to bed, he will be correspondingly elated. It is quite probable that one of the most enticing realities about "growing up" is, for the five-year-old, the right to be self-regulating in the matter of bedtime! There is a magic about the hours that intervene after he is in bed and asleep and before his elders retire that quite enthralls his fancy.

Of the divisions of time, the preschool child has only the vaguest perceptions. An hour, a half-hour, ten minutes, mean little; while longer units, such as a month and a year, are still less intelligible. Even the duration of time between his birthdays, so long and so filled is it with momentous events, fails to afford any adequate basis for perceiving "one year." To the five-year-old, his ten-year-old brother seems hopelessly older than himself, and the chances of his ever achieving that great age seem more hopeless still. If ever the years drag, they drag now! To the school child, returning home in September, "next summer" with its recurring vacation trip or its long visit in the country, seems to be an unconscionably long way off.

Not a few difficult situations arise between parent and child because of the latter's faulty perception of the shorter divisions of time. "Yes, you may go up the street and play with Joe, but be sure to come back in an hour!" The hour passes, with no evidence of the child's return. It is just as likely as not to be two hours or longer before he puts in an appearance, and then he feels no premonition of trouble, because he has no notion of time. "You may go over to Philip's house, but I want you to be back home at five o'clock. It's now half past three." Five o'clock may come and go—and so may six, if the two boys are having an exciting and happy time together—and an irate mother may go herself, or dispatch the father, to corral the youngster and get him home in time for a late supper! Add to a child's imperfect perception of time the necromancy worked by pleasurable and absorbing play, and you have the basis for much unintended heedlessness and disobedience in his behavior.

Often while away playing at the home of a neighbor, a child will reveal fleeting moments of preoccupation over his time allotment, as in the case of Harry (four and a half years old) who during the afternoon would break out phonographically with the theme: "I must go home at four o'clock!" Finally, when it was

near six o'clock, Harry interrogated a passer-by, with the query, "Is it four o'clock, mister?"

PERCEPTION OF SPACE, OR DISTANCE

Extent of space is, if anything, somewhat more puzzling to children than is duration of time. Their lives being regulated much more on a time than on a space basis, they have less opportunity to perceive repetitively units of distance than they do units of time. "A hundred and fifty feet"; "three hundred yards"; "half a mile"; "two miles"; "fifty miles"; "ten acres"; "5000 square feet"—these are concepts that must wait upon the coming of the middle or even the upper grades before they can be clarified. You will find that even grownups, unless they deal in land or follow vocations that sharpen perception of distance, have rather vague ideas of such spatial extensities. Occasional children, by virtue of the fact that they live "a quarter of a mile from Aunt Nellie's house," or that their house lot contains "just 5000 square feet," or that they "carry a two-mile paper route," etc., have more adequate bases for perception of distance and extent than do other children whose day-by-day experience does not include these matters. For the latter, accurate perception of space comes slowly.

An inch, a foot, and a yard come to possess meaning by the time a child reaches the second or third grade and uses a ruler for drawing margins, borders, etc., and for the actual objective measurement of surfaces as a part of mensuration. Even so, while he acquires a reasonably accurate perception of inches and feet and yards as units, he remains poor in comprehending multiples of these in actual linear distances. Thus, a ten-year-old child in the fourth or fifth grade may, when queried, estimate the length and width of the 30′ x 40′ schoolroom to be anywhere from 10′ x 12′ to 50′ x 100′! And when it comes to calculating vertical distances, he, like most adults, has a still greater tendency to error. Thus the classroom may be adjudged to be anywhere from 6 feet high to 50; and the flagpole outside the window to be as low as 10 feet and as high as 100. It comes often as a distinct surprise to note how short a seemingly tall flagpole actually is when it has been blown down or has been taken down for repairs.

PERCEPTION OF MONEY UNITS

Everybody has smiled at the willingness of the three-year-old to exchange his small dime for a larger penny or nickel. In his but yet dimly comprehending perception of values, size or bigness means worth. A child needs considerable experience with coins before he develops shrewdness in handling and conserving them. The story is told of young Benjamin Franklin, who one day became greatly enamored of a whistle he heard another boy blowing. Finding out where the whistle had been bought, the boy went to the shop and, carried away by the prospect of becoming the owner of one of the precious whistles, exclaimed to the shopkeeper: "I will give you all the pennies I have for a whistle!" "How many pennies have you got?" he was asked. The boy drew them out of his purse and gave them to the proprietor who, appearing not dissatisfied, placed them in his till and handed Franklin the whistle. Later on, when asked by his father how much he had paid for his prize, he learned one of his first lessons in the value of money. His famous axiom, "Never pay too much for the whistle," stemmed from this incident. Thus, even Franklin, who was destined to become one of the most shrewd of financiers, had to build his meanings of money out of harsh experience.

It is safe to say that the pennies young Franklin had he had earned and saved by the sweat of his brow. Today's children, for the most part, lack a basal comprehension of money values because they too often do not have to obtain their spending money the hard way. The parental purse is deemed to be, and often is, unfailing and inexhaustible. In such flush circumstances, it is difficult for children to develop any adequate understanding of the meaning of money. Even their parents, bewildered by the astronomical figures in which are expressed the annual cost of government, the national debt, etc., have lost some of their own perspective in money matters.

Income and outgo and personal finances being, as they are, so intimately and personally related to the happiness and the security of every individual, it is important for every child to receive definite training in the value and use of money. In the intermediate grades the modern school does much through playing store, transacting sales in pasteboard coins, promoting pupil's savings accounts, teaching thrift, and the like, to make children cognizant of the value of money and competent in its handling. A nation that,

like our own conspicuously, has been built upon the thrift of its citizens, does well to encourage this trait in those who are to be its citizens tomorrow.

Parents can do much along these lines also. It is of doubtful efficacy in stimulating thriftiness in his son when a father, importuned for an extra "quarter" or "buck," discourses eloquently and nostalgically upon the olden days when he himself was lucky and content if he "had a nickel to spend in a week," and then hands over the requested sum. What is needed is much sympathetic understanding of the present juvenile scene and the demands it makes upon children's purses, together with much frank and open discussion of saving for better things tomorrow while at the same time not necessarily denying oneself quite to the hurting point at the moment. Money is relative to today's enjoyment, and to tomorrow's needs and opportunities. The latter do not seem particularly important to the child at the moment; the former appeal more strongly. Parents need to counsel and to lead their children to a happy and acceptable medium, somewhere between the two extremes of spending and saving, probably somewhat more to the saving than to the spending side of center.

IMPORTANCE OF MUCH CONCRETE PERCEPTUAL EXPERIENCE

As we have said repeatedly in this chapter, meaning and interpretation depend upon accumulating experience. Ever since the days of Pestalozzi, elementary education has stressed the importance of much direct sensory experience. This is significant in every area the school taps. One learns to comprehend the various units of time and space and number and money, as we have just seen, by being brought in repetitive contact with situations involving those units. There are many other areas, however, besides these four, with which the school is concerned in the development of meanings of objective stimuli and events. Children gain no understanding, for example, of pints, quarts, gallons, pecks, bushels, and other measures of volume, until they are given specific and concrete experience with these concepts. They learn the meaning of islands, rivers, promontories, lakes, bays, oceans, etc., only by sand-table representations, or by pictures, or by actual visits to them. Mountain ranges, uplands, and highlands may be nothing more than varying degrees of brown upon a relief map in a geographical text; France, only a block of pink; the Argentine, only one of green.

Nature study presents a field in which concrete experience is both easy to have and essential for perceptual clearness. Study and identification of birds and flowers and minerals outside the schoolroom yield better returns in understanding and interest than does study of stuffed specimens and mounted pictures inside. Elementary agriculture and elementary astronomy, when studied objectively in the open field and garden and under the early night sky, become rich with meaning. To children thus taught, the universe in which they live becomes alive and meaningful and most fascinating. "Wordy fools," Pestalozzi dubbed those teachers of his day who closed their eyes to the objective world just outside the schoolroom door and attempted to instill wisdom into their children by haranguing them with phrase and lecture. Wordy fools, likewise, are we who teach today if we do as they did.

THE GROWTH OF IDEAS

The goal of all perceptual learning becomes ultimately the establishing of meaningful ideas in the child's mind. The cue idea, as we have noted, is able to arouse any or all related ideas that one may have upon the specific stimulus in focus at the moment. But before ideas can be synthesized, there must be a preceding analytic process. From his earliest months, the child seeks continually to analyze his environment by subjecting it to all kinds of sensory and manipulative exploration. Even the rubber ball that rolls and bounces from his thrusting hand is not a rubber ball until he has observed it from all angles, pinched it, hefted it, poised it in air, thrown it against the wall and had it come bounding back, laid the weight of his body upon it and felt or seen it change its shape under pressure, and in myriads of other ways *analyzed* its nature. This experimental procedure of the young investigator goes on endlessly and tirelessly throughout much of childhood. Each new object must undergo the same analytic inquiry. Driven by the will to know and to understand, the child employs all his resources to achieve a working knowledge of his environment. In this sense he is not different from the trained adult scientist, with his test tube and his microscope, seeking to analyze and to understand an environment whose borders are only somewhat more remote.

Gertrude, analyzing the miracle of a talking doll which greatly intrigued her, pulled the doll to pieces in order to discover the secret of its speech. Henry, eight years old, took down his small

bicycle, examining every part of it carefully, in order to understand its mechanism. Joe and Bill, eleven each, pored for hours over a boys' book on how to make various gadgets, and then set to work to construct a private telephone line, with instruments, connecting their two houses. George, twelve years old, acquired a discarded radio receiving set, and completely dismantled it, studying each part individually and referring constantly to a pocket manual on radio construction for clarification as he proceeded. Joan, twelve years old, interested in embroidery, acquired a book on home needle-work, and studied carefully every kind of stitch, subsequently practicing her hand at many of them and producing a number of excellent pieces of hand work.

These are all examples of the analysis of a stimulus or of a situation that must take place before the child can synthesize his experience into ideas and meanings. Failure of teachers to understand this sequence results in much undigested and unworkable "knowledge" that the schools attempt to impart to their pupils. Forgetting that the natural order of procedure for the young learner is progression from small, isolated, simple meanings to larger, more involved and complex ones, they talk glibly about "taxation" and "investments" and "trusts" and "monopolies" and "socialism"—and even of "democracy" and "cooperation" and "patriotism"—while their pupils have only the vaguest understanding of these terms and concepts. One study found that such words as those enumerated above could be meaningfully interpreted by only about 25 per cent of fifth-grade children and by less than 50 per cent of sixth-grade children.

One of the most striking illustrations of the folly of this sort of teaching that has come to the author's attention is a study made some years ago on the adequacy of the teaching of so-called "physiology" to eight-grade pupils. Toward the close of the school year, in accordance with custom, all eighth-grade children in the state were given a final examination. Following are some typical answers taken from the papers turned in by the pupils in one of the best educational counties:

"A common disinfectant is smallpox."
"Mastication is what is going on."
"Epidermis is a certain kind of medicine."
"The diaphragm is another name for backbone."
"The bones are made up of hard mucous membrane."
"Pericardium is something that will put you to sleep."

"Respiration means all the different juices of the body."
"The diaphragm is very delicate and located in the head."
"Fumigation is when the air is shut off and death may come."
"The eustachian tube is a tube running all over the body."
"The nervous system is a kind of tube where the blood vessels are in." [Sic.]
"The process of digestion causes headache and much impure blood."
"Fried potatoes often cause digestion."
"A disinfectant is anything you catch by going where they are." [Sic.]
"Measles and chicken-pox are disinfectants. When you have them you should stay in the house and keep warm and try not to give them to others. Pimples on the face are not disinfectants, but some kinds are."

Wordy fools, indeed—teachers and pupils alike! It is obvious that these children had heard only meaningless words, and that they had tried their best to memorize meanings where there were no meanings apparent. No logical analysis was required of them, and no training was given to them in arriving at understandable ideas. All they had done was to try to associate one meaningless term with another; and when it came to recall, the verbal associates got mixed hopelessly, "diaphragm" going with "backbone," "measles" with "disinfectants," "disinfectants" with "contagious diseases," etc. This is education reduced to absurdity indeed; it is the *ne plus ultra* of pedagogic idiocy. Fortunately, this investigation was made some twenty years ago, and it is ardently to be hoped that those implicated have seen the folly of their ways in the meantime.

But though they may have seen their folly, and other educators and other course of study makers may have seen theirs, there still remains an unbelievable amount of malpractice among teachers in endeavoring to cram into the intellectual maws of their pupils huge undissected morsels that cannot possibly be assimilated. It appears that, while the primary grades offend little in this regard, there is need for much improvement in the grades beyond. There is only one order in perceptual learning, and no liberties may safely be taken with it: first of all, basal understanding of small perceived items or units must be had; next, further analysis of other related items or units must be made; and finally, a logical synthesis of all the elements must be fused into a meaningful whole.

PERTINENT QUESTIONS FOR DISCUSSION

1. If you are not in a first grade, observe a first-grade teacher conducting an early drill in sight reading. Note the genesis of the children's ability to perceive meanings of words, phrases, and sentences.
2. List a number of simple, everyday experiences that first-graders have that could be made the basis for sight-reading drill. If possible, conduct such a drill, using one or more of these experiences as a base.
3. Prepare a list of stimulus questions, like the list used by Probst, and determine for yourself the content of your own children's minds. Try to adapt the stimuli to the age and environment of your children.
4. If you get an opportunity, listen in on a dialogue between a young child and his mother—or some other adult—in which one "Why?" question succeeds another almost endlessly as the child seeks for understanding of his world.
5. Do your pupils seem to have good social perception? Are some more obtuse than others?
6. Do you have any individual pupil who, because of faulty vision or hearing, receives distorted sensory impressions?
7. Show how a young child develops an understanding of the following: apple; "Naughty"; "Mustn't touch!"; grandma.
8. Query several older children as to the earliest childhood memories they have retained. What was the probable emotional basis for their persistence?
9. What is the earliest childhood experience you can personally recall? How old were you when it occurred? Why has it probably been retained?
10. By what means do you make appeal to the involuntary attention of your pupils? For what usual purpose?
11. Suggest instances of involuntary attention that your class has paid to stimuli arising outside of yourself.
12. Enumerate cases of non-voluntary, or spontaneous, attention that some of your children pay to stimuli that are inherently interesting.
13. Why are young children's powers of paying voluntary attention weak and sketchy? Cite instances of good voluntary attention in your own room.
14. What is your understanding of the meaning of a "cue" in perception? Suggest a number of examples of cues that your pupils obviously make good and intelligent use of.
15. Collect examples of distorted perceptions manifested by individual children in your group.

16. Pay a visit to a toy store and make a study of the use of colors made by manufacturers. To what extent does their color seem to recommend toys and playthings to children?
17. Make a systematic study of the development of his ability to tell and to sense time manifested by some individual preschool child over a period of several months. You will find it interesting to give him some aid frequently, and note the results.
18. During a five-minute lull in the day's activities, have your children estimate the length, width, and height of the classroom; the dimensions of their desk tops; the height of the flagpole; the distance from the main doors to the street, etc. Vary your directions with the age and maturity of the children.
19. What are you doing to establish in your children any understanding of the value and use of money?
20. To what extent do you strive to introduce concrete perceptual experience in the various curricular subjects you teach?
21. Do you think there is anything comparable in the pedagogic results in your own school—in any area or field of learning —with the meaningless jumbling of words exemplified in the "physiology" examination cited toward the end of the chapter?

READING COURSE TO PARALLEL THE CHAPTER

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3. MORGAN, J. J. B. *Child psychology.* 3rd ed.; New York: Farrar and Rinehart, 1942. Chapter 8.
4. NAGGE, J. W. *Psychology of the child.* New York: Ronald, 1942. Chapter 4.

CHAPTER 13

HOW CHILDREN LEARN

Some Children To Identify in Your Room

A child who . . .

(1) though of foreign race and birth, acquires readily our American ways;
(2) displays much trial and error in a learning situation;
(3) triumphs over an obstacle and achieves his goal;
(4) exemplifies well some of the mores of the community;
(5) comes from a home that works at cross-purposes with the school;
(6) differs sharply from another child from a different social stratum;
(7) exemplifies a phonographic type of mind in learning;
(8) shows great mental flexibility in trying out hypotheses;
(9) is satisfied with naive and uncritical explanations;
(10) is handicapped by limited past learning in a specific area;
(11) fails to warm up to remote or delayed goals;
(12) has learned richly outside of school;
(13) mixes well with other children of quite different extraction;
(14) shows evidence of becoming a good world citizen;
(15) characteristically displays a passive attitude to most learning;
(16) exemplifies well the active attitude in some learning situation.

GENERAL ORIENTATION

Lying at the basis of all human learning—whether child or adult—is the plasticity of the nervous system. Of all living matter, nerve tissue is unquestionably the most plastic and modifiable. If the learning capacity of the lower sub-human forms of organic life is sharply restricted, it is primarily because the nervous system is lacking, or is embryonic, or is very simple. Only the human nervous system is elaborately complex and modifiable, and it is this complexity, this modifiability, that makes possible the miracle of learning in the human sense.

From the standpoint of child psychology, the most striking fact

about human nerve tissue is that in the very young organism it is most plastic and modifiable of all. Grown-up people often find it difficult to master new skills, organize new habits, elaborate new thought patterns and processes; they are, or tend to be, set and inflexible in their ways; they hold to the same opinions, attitudes, principles, aims, with great tenacity; in them there is often observed to be only a modicum of resiliency and flexibility. But children are bound by no such restricting and delimiting strait jackets. They can learn and unlearn with facility; they encounter no insurmountable difficulty in absorbing whatever brand of culture surrounds them; they have no inhibitions due to tradition, habit pattern, or preconceptions; they present to the world an unwritten tablet, which Locke aptly called *tabula rasa,* upon which crowding and accumulating experiences write their indelible records. There is unquestionably no limit either of goodness or of badness, exemplariness or despicableness, that the young may not reach if only the model and opportunity are placed before them. It is well within the power of the human race to progress in the direction of saintliness or to retrogress in the direction of deviltry according as its teachers and its trail blazers and environment fashioners conspire to transform or to deform the behavior pattern of its young.

Contrast, if you will, two children, one of whom has been nurtured in an American home, the other of whom has been reared in a Chinese home. The former will, of course, exhibit the racial characteristics of Occidentals; but beyond this merely physical manifestation of the hereditary genes, he will be an American child. He will speak the vernacular; he will play indigenous games, absorb the indigenous mores, salute the American flag, reflect the codes of conduct peculiar to the West, master the memory gems of his school and his Sunday school. The Chinese child, on the other hand, obviously, too, manifesting the physical traits of his race, will be a *Chinese* child. He will speak a Chinese dialect, play Chinese games, absorb the Chinese mores, thrill to the passing of the flag of China, reflect in his conduct those codes peculiar to the Orient, master the memory gems of oriental scholars and philosophers. Yet both of these children started out with exactly the same potentialities; each of them, had he been transferred at birth to the opposite culture, would have developed accordingly, the American-born growing up to be in all respects a Chinese lad, the Chinese-born growing up to be an American.

It must be obvious that these habits and patterns of behavior

come about through a modifiable and plastic nervous system that makes it possible for the one child to build one set of reactions, and for the other to build a quite different one. There is nothing in the vocal apparatus, for example, of a Chinese baby that will prevent him from imitating English speech forms, so that he might shout and chat in English quite as readily and understandably, if exposed from the beginning to the English speech, as would an American child, and *vice versa.* If, however, the Chinese child remains in the Oriental setting until he is twelve or fifteen years old and is then transplanted completely to an Occidental atmosphere, the likelihood of full absorption of the latter culture will be very much less. Conversely, let an American born and bred child be set down at fifteen years of age in a Chinese culture, and his absorption of it will be incomplete. These facts suggest how readily molded is the *young* human nervous system by the shaping and creating influences that play upon it.

Literature and human experience, on the other hand, are replete with evidence of the brittleness and the inflexibility of adults who have passed beyond the molding years. It is as though their nervous systems had become incrusted with the congealing and ossifying influences of time, so that they are no longer able to react with fresh and uncircumscribed pliability to the forces that continue to play upon them. Learning new arts and new skills and new adjustments becomes for them difficult, if not actually impossible. This is an inevitable part of the penalty the organism must pay for growing old.

THE METHOD OF TRIAL AND ERROR

You are familiar from your study of general psychology and educational psychology with the method of trial and error in learning. Confronted with a new situation for the solution of which the individual has no immediately recallable past experience, and no available technique, he tends to multiply random efforts that may or may not be relevant to the situation. If he is taking apart a mechanical puzzle, he may poke and manipulate and twist and pull ad infinitum, without making any headway at solving the problem. Only after many trials and many errors is success finally achieved. This characteristic repetition of error in the trials gives to the process the name trial and error. During the process there is a deal of restlessness, aimless thrashing about, emotionally tinged

ejaculation, and the like, as the subject persists in his random efforts.

Insight may or may not eventuate. If it does, the individual will suddenly perceive a new relationship or a repatterning of the situation, and may pass directly to a solution. If there is no insight, success will come—if it comes at all—as a result of accident. No matter how dense may be the subject, if he persists in enough random, trial and error moves over a long enough time, the links in the chain or the parts of the ring will chance sometime to be jockeyed into the one position that will bring a solution.

Childhood learning is the heyday of trial and error. From the earliest months of life, the child learns by this somewhat uneconomical but only available method. By trial and error, he learns how to control and direct his hands, fingers, legs, feet; by trial and error, he learns how to creep, to stand, to walk, to run; by trial and error, he learns how to pronounce words and to use language and gesture; by trial and error, he learns how to interpret the language, gestures, and manners of others; by trial and error, he learns what conduct is approved and rewarded, and what is disapproved and punished. There is no area of this experience in which he is not seeking by this method to learn, to interpret, to manage, to conduct himself. The young child must start out from scratch; the world is his for the taking, but he has no idea how to take it, until he has tried and tried, again and again. Lacking the inhibitions and the inflexibilities of the adult, he lacks also all background of experience and apperception, so that he is in a most strategic and stimulating position to grasp relationships and to learn skills. There is almost literally nothing that he will not try; nor is he discouraged and nonplussed by his failures and gaucheries.

Take voice trilling, or yodeling, for example. Once an eight-year-old becomes intrigued by the prospects of yodeling, he adopts what to his elders appears to be a painfully all-or-none determination to master the art. Morning, noon, and night, early and late, and under all circumstances, he may be heard filling the neighborhood with initially unmusical but latterly pleasing and euphonious sound. During the process of learning the art, his vocal apparatus is plumbed to its depths to produce all manner of jangling and discordance as he struggles to find the solution. Relatives and neighbors may despair of ever being free of the earsplitting and jarring monstrosities of sound that proceed from his throat; even

his long-suffering dog may avoid him during the moments of highest creation.

THREE ESSENTIALS IN CHILDREN'S LEARNING

1. An Obstacle or Challenge

In the midst of all this plasticity of neural mechanism and the omnipresence of trial and error as a method in learning, one is impressed by the fact that only three elements need to be present if a child is to learn. First of all, there must be an obstacle or a challenge. Like adults, children do not apply themselves mentally unless there is some sort of challenge to their prowess, some obstacle to be overcome, some preferment or goal or distinction to be achieved. In the non-school environment, such intriguing situations abound. Home, yard, street, field, play space, bench, garage, basement—these are filled with adventurous and intriguing situations to be investigated, understood, dominated. A child learns, for example, what is in the ground by delving with his shovel in it, pausing frequently to regard a colored stone, or an angleworm, or a pupa; he learns how to dam up the gutter or the streamlet, and how to sluice its waters down over his water wheel; he learns how to balance himself on a bicycle, on a rail, on the ridgeboard, on skates and skis; he learns how to dismount and remount the wheel and tire of his bicycle, and how to find and repair leaks; he learns how to lay out a ball field, place the bases, play the game, pitch the curve; he learns how to do sleight-of-hand tricks, talk an original jargon, aim his arrow, build a birdhouse, trap an animal; he learns how to climb a tree or post, make a slingshot, cart, or whistle; he learns how to tease and cajole his parents, select the best buy for his money, mystify his dog, disarm or outsmart his teacher.

In all of these, and in the unnumbered myriads of other situations in which the child finds himself, he learns because before him is a challenge of some sort or other, an obstacle to be overcome or surmounted, a domination to be achieved. If one could imagine a juvenile world utterly and completely without challenge and obstacle, one would be envisaging a world in which children would be passive, inert, and stale, since there would be nothing in their environment that would intrigue them to learn. Whatever learning in such a world a child might undertake would of necessity have to be of second-hand, passive problems set by a taskmaster.

2. Motivation, or the Desire To Conquer the Obstacle

But the mere presence of obstacles and challenges in the child's world is not sufficient to guarantee that the individual will pit himself against the difficulty and learn how to conquer it. Plenty of people—young and old alike—are living in the midst of challenging problems and intriguing obstacles, yet are rarely or never moved to cerebrate about them. Learning does not take place unless and until the child feels himself in the grip of a desire or will to master something. In the simple, non-school world of childhood, fortunately, almost everything intrigues the child. He is eager to learn, eager to master. Being a child is almost synonymous with being curious.

Perry, 7 years old, was bouncing a small tennis ball against the front of the house and catching it, or trying to do so, at each rebound. In the midst of his play he tossed the ball a little too high and a little too hard, with the result that it bounded back over his head, quite beyond the reach of his upstretched hands, and rolled out into the street. There being an easy slope of the pavement downward toward the opposite curbing, the ball rolled across the street and dropped down through the iron grating into a catch-basin. Perry ran to appraise the new situation. Lying down flat over the curb stone he could see the ball bobbing about in the water some three feet below the grating. The problem of retrieving it became focal. For a time he exclaimed in bafflment, and tried to reach down through the arched stone opening under the curbing; obviously his arm was too short to bridge the distance. Then he ran back to the back yard, and returned shortly with a piece of edging, which he proceeded to insert through the grating. Of course, the only result was to push the ball to and fro in the water without raising it.

By this time another boy—Jerry, aged 8—had appeared, and the two of them were shortly observed to be lying prone over the curbing, poking away at the elusive ball. Considerable animated talk of appropriate procedures ensued, ranging all the way from calling out the fire department to "lassoing" the ball with a looped string. Finally, Perry conceived the plan of going to fetch a garden rake which his father had and "fishing" for the ball with its teeth. When the rake had been procured, it was found that the curved iron teeth were too long to permit lowering the rake perpendicularly through the bars of the grating. After a little huddle, in which they reversed the rake and passed the handle down through the grating without successful results, they found that by laying the

implement down horizontally, or nearly so, they could pass the teeth through the bars, then bring the handle to a vertical position, and so make the desired contact with the objective. In triumph they shortly were rewarded by snaring the ball and raising it dripping from the water to the bottom of the grating. In their eagerness to grasp it, however, they inadvertently shifted the angle of the teeth and the ball splashed back into the basin. It did not matter. They knew the problem was solved. The second snaring was accomplished readily, and the ball was successfully grasped by Perry's outstretched hand and brought up to the arch. Characteristically, both boys were so excited in the successful outcome to their problem that they completely ignored the rake, allowing it to drop back into the basin, leaving maybe a foot of handle emerging above the top. This unfamiliar—yet familiar—object attracted the eye of Perry's father an hour later when he returned home, and in some mystification he pulled it up, recognized it as his own rake, and—presumably—made the obvious deduction of a father of a 7-year-old boy.

In this example, the motivation is strong; to recover a lost ball. The nature of the problem, confronting Perry, and latterly Jerry, was such as to intrigue and to challenge. The solution required adequate thinking, comparing, planning, criticizing, and executing, all of which the two boys were eager to do in order to master the situation.

3. *Plenty of Freedom*

This lost-ball situation exemplifies well a third requisite for good learning in the child. He must have plenty of freedom to arrive at his solutions. The naturally exploratory mind of a child, confronted by an intriguing problem, requires much unobstructed latitude in casting about for and applying hypotheses and plans. This is, in fact, the very essence of trial-and-error procedure, and unless the young problem solver can be unhampered by stereotyped suggestions or leads his progress will be unsatisfactory. It is to be expected, of course, that not all his hypotheses will be valid for the specific problem confronting him. Some will fall wide of the mark; some will bear little or no relationship to the goal sought. That is as it should be, for in the process of winnowing hypotheses and revising and discarding untoward plans, he learns to become more shrewd and practical in problem situations.

Many years ago, William H. Burnham postulated that if learning is to take place economically as well as hygienically, the learner

must have, first, a task; second, a plan; and third, freedom with which to work it through. What we have been saying in the preceding paragraphs illustrates well this doctrine of Burnham. Of paramount significance is the guarantee of freedom. This freedom may be independence in searching for solutions; it may be independence in evaluating them; it may be freedom to make mistakes. One must expect a good deal of bungling and untowardness in child problem solving; one must not be surprised if during the process of learning he wastes or ruins some materials, or if he sets forth on leads that to the adult onlooker are patently futile. Blind alleys and blank walls looming up ahead are rarely disconcerting or discouraging to a child engaged in an interesting and intriguing learning process; it is as easy to discard as it is to assay. The mental gymnastics and trial-and-error adjustments that children are thus called upon to indulge in are distinctly valuable and developmental in the eventual achievement of flexible and adequate mental processes. The only danger is that the goal may be too unachievable and that the child will wander about hopeless and baffled in the unfamiliar terrain; in such unfortunate circumstances, the blame is to be placed upon the individual—usually an adult, and often a teacher—who duped the child into trying for an objective beyond achievability at his present stage of maturation and interest.

BACKGROUNDS OF CHILDREN'S LEARNING

1. The Mores

The child is born into a specific culture pattern that furnishes the general background against which his acquisitional experience must take place. In the course of the preschool years he absorbs like a chameleon the characteristics of this cultural background. Being white, American, Bostonian or Chicagoan of Louisvillian, urban or rural, he is cradled in a specific brand of culture that provides the first scaffolding for his learning. Beyond that, one must realize that the language, religiousness, political affiliations, economic status and outlook, and the general parental complement of habits, attitudes, and sentiment will further condition and give direction to his mental evolution. Among the children in the same school, nurtured in tolerably similar mores, while there will be striking differences in the effects that exposure to the school will produce, there will tend to be found a basal similarity. If you have had ex-

perience in an isolated country school, and in a consolidated school, and in an urban school, either as pupil or as teacher, you can well appreciate how the mores of each community are reflected in the ideas and interests of the pupils.

2. The Home

Notwithstanding the tendency the mores of the community have to promote an identity of pattern among the children in it, the home example and conditioning have considerable influence in determining the direction and the depth of the learning of individual children. Even assuming that all the parents in a community have at least average intelligence and that all their children run true to type, there are yet striking differences in school achievement and influence that are traceable directly to the homes the pupils come from.

If parents have ambition for their child and encourage him in his schoolwork, they may expect that he will be a good learner; if, on the other hand, parents are unconcerned with or uninterested in a child's future, and if they ignore or condemn his school or teacher, they may expect an indifferent or even rebellious learner. If their principal interest consists in marking time until a boy can leave school and go to work, or in criticizing the school and what it tries to do, or in aiding and abetting a boy in neglecting his assigned duties, playing loosely with attendance regulations, and the like, they must expect poor learning and general indifference on his part. Lacking these poor attitudes, some parents who may respect the school setup and program still work at cross-purposes with it by scolding about poor grades, alluding *ad nauseam* to a child's laziness or heedlessness or lack of brains, and expressing a conviction that a child is "just plain dumb." The inspiration a youngster can feel for learning if he is constantly hounded by these diatribes cannot be expected to be very deep.

The home example affects a child's learning in many ways. If the language he hears and uses at home is careless and grossly ungrammatical, it will be much harder for him to learn more refined speech at school. If his father is dishonest and known to be shady in his dealings, it will not be easy for a boy to learn and to practice honesty and reliability. If a girl's mother is sick and shabby in her household responsibilities, it will be difficult for her daughter to learn to be neat and methodical. If parents are cynical, or vituperative, or hysterical about the social scene, their children will be

greatly handicapped in learning to understand it and to live calmly and optimistically within it. If the elders are seclusive, ridden with inferiorities, and suspicious of their neighbors, the offspring will find it hard to learn in their school associations to be open and frank and self-reliant. If the parents curse their fate or ill-luck, live in warfare with the people next door, castigate the government, snap their fingers at the law, the children will have already two strikes on them when they reach the school environs and begin formal learning. They have so much to unlearn that the prognosis is dubious.

3. Experience

We have noted in preceding chapters the dramatic role played by experience in building up the totality of the child's understanding of his environment. The preschool experience becomes woven intricately into the pattern of his schoolroom learning. A boy, for example, whose experiential background is one of rural living, with animals to be cared for, planting and reaping and storing to be accomplished seasonally, tools and implements to be handled and kept in condition, presents a strikingly different background against which to build schoolroom learning from that offered by an urban boy who has passed his years in a steam-heated home, on streets thronging with people and filled with speeding vehicles, amongst patrons of the corner drugstore and the movie house hard by. While nominally the same course of study may be followed in both the schools to which these children go, vastly different learning reactions will occur and vastly different learning products will result.

So, too, a child from the slums brings to school a different learning base and perhaps also a different learning attitude from those brought by a child from a superior residential section of the city. A boy from "little Italy," or "Chinatown," or the "Ghetto" will likewise be conditioned already by the nature of his experience before he gets to school. The child of a laborer has different attitudes and outlooks and values from those possessed by the child of an engineer or banker. A boy who spends three months each summer at the seashore, in the mountains, or in the country will have a different background for learning from that of a boy who has never seen ocean or mountain or cow, or even grass and flowers. Even the sons of fishermen, cobblers, weavers, mechanics, postmen —all have varying experiential nexuses, and to that extent present

different foundations for the school and the teachers to build upon. It is safe to say, when one considers all these factors in the early experience of children, that hardly any two pupils are alike in their conditioning and in their preparation for the learning of the school.

4. The School Itself

Most important of all the factors that make up the background of continuing learning is the day-by-day experience provided by the school. Each succeeding grade—each succeeding day and hour, in fact—builds upon the retained ideas and skills implanted in each preceding one. The influence of this sequence of learning experience is often strikingly apparent to teachers who have among their children "transfers" from other schools in other localities. A fifth-grade child, for example, who comes mid-term from a school system in a different state or section, may be almost startlingly different in his formal educational background from the rest of the children who have come up through the local system. This is an inevitable consequent of the different formative schoolroom forces that have moulded him—different teaching, different educational emphasis, different values and aims, different standards and methods and devices.

CHILDHOOD A "GOLDEN AGE" FOR LEARNING (?)

It is a commonly understood axiom among many people that the best and most economical learning takes place during childhood. Many considerations lead us to question somewhat this universal conviction. First of all, it must be remembered that the younger the individual, the less his degree of maturation. The scope of a child's learning is therefore sharply limited to the potentialities of the stage of cerebral and of neuromuscular development at which he has arrived. For tasks involving later stages of maturation he is totally unequipped for the time being. Second, the child's experience is radically limited. His contacts with his world, while as we have seen they radiate widely and rapidly in all directions, are for the most part on a sense-perceptual level during the preschool years, and even with the coming of the earliest school years they continue relatively slowly to include ideas and associative knowledge in general. Since formal learning at the elementary-school level involves increasing facility in absorbing associative meanings and ideas from language and symbols, it is obvious that the elementary-school years are hardly golden years for learning.

Third, young children, possessing more or less phonographic types of minds, tend easily to memorize words and symbols rather than to interpret them rationally and to retain their logical meanings. This easy memory for phrase and language militates against logical and meaningful learning and definitely restricts the association of ideas, which is the *sine qua non* of efficient and economical learning. Grade by grade, children become increasingly able to use the logical as opposed to the rote method of study and learning, not reaching the zenith of their powers in this type of acquisition until the late 'teens, at which learning efficiency probably attains its highest point. Fourth, younger children are content with obscure meanings and usually feel no particular urge to make order and clarity out of printed symbols. The glibness with which they will, if permitted, "give back" the words of an author, unillumined by any ray of understanding, is almost proverbial. This same tendency, unfortunately, does not cease with the elementary, nor even with the high-school years. Every college teacher knows how prone are mature students to parrot authors' phrases with serenity in the naïve supposition that learning is phonographic rather than personal and logical.

To offset all this, and to substantiate whatever basis there is for calling childhood a golden age for learning, we have the one fact that children are free of pedagogic inhibitions, as we have noted in a preceding paragraph. Their minds are flexible, imaginative, and eager. They have no difficulty in attempting hypotheses, however irrelevant they may be to the problem in hand; they have no preconceptions, no prejudices, and no encrusted attitudes to deter them. If one hypothesis does not fit, they can discard it unregretfully and try another, and another, ad infinitum. Even this mental flexibility, however, cannot begin to make up for the immaturity of child learners. The truth of the matter is, far from the implication of the maxim, that the younger child is less able to learn than the older one; the older one than the adolescent; and even the adolescent, probably, than the young adult.

SOME DIFFERENCES BETWEEN CHILD AND ADULT LEARNING

1. The Child Is More Dependent upon Sensory Stimulation

The younger the child, the more he tends to live on a sense level rather than on an ideational one. As we have seen repeatedly throughout this book, the preschool child revels in a surrounding

world of sense experience. Even when he gets to school, his values and understandings are still predominantly of this order. Only with the passing of the years can he achieve a status in which the purely sensory appeal may drop out and ideas become attractive and stimulating to him. Consequently, in the primary grades there must be much restless activity, much moving about, much involuntary reaction to color, novelty, contrast, much simple dramatization, much cutting and pasting and sketching and coloring. The primary child learns to read from large flash cards, from illuminated blackboards, from "newspapers" written in bold script, from preprimers and primers and early readers printed in large type and illustrated with brightly colored pictures.

He learns to comprehend number from manipulating colored pegs and blocks and pasteboard squares and marbles, from seeing large figures written on flash cards and blackboards, from going about among the children, touching each and counting them as he passes, from adding brightly painted cubes and squares, from playing with pasteboard coins and discs. He learns to write by manipulating jumbo pencils and crayons and colored chalk on paper and blackboard, by tracing in grooves or in the air, and by imitating models written or printed in large letters. He learns the elements of social behavior by listening to stories, by drill and practice in model speech forms, by dramatization of simple social behavioral situations, and by memorization and recitation of creeds and good citizenship gems. He learns the rules of health by memorizing food rhymes, by drawing and lettering the items on the daily menu, by cutting and pasting pictures of bottles of milk and assortments of gaily colored vegetables and fruits on brown-paper mounts, by "Cho-Cho, the Health-Clown" techniques, and by dramatization of health stories and games. In every learning situation that confronts him, he learns best and with most fascination if striking sensory appeal is made to his receptors.

2. The Child Has Less Caution and Foresight

Mature adult learners have schooled themselves to use discrimination and judgment in selecting hypotheses and drawing conclusions and making inferences. Child learners, on the other hand, are handicapped by no such cautious procedures. They make often ludicrous inferences; they jump hastily to conclusions; they do not wait until the evidence is all in; they do not examine both sides of a problem; they are content with superficial judgments and

observations; their curiosity, while easily aroused, is satisfied often with uncritical, naïve explanations.

Chancing upon a reference in his sixth-grade social science book to the city of Denver, Rollo informed the class that his uncle had gone to Denver several months ago. The following dialogue immediately ensued among the children:

"Why did he go?"
"For his health; his lungs got kind of bad, I guess."
"How did he happen to go there? Denver's a long way off."
"I guess lots of people go there."
"Maybe it's because they can go by automobile and the long ride gives them a good rest, and they feel better."
"Uncle Ed went on the train. I don't think it took him very long."
"What's Denver like anyway?"
"Perhaps they have good hospitals there."
"Uncle Ed is staying with an old chum he had years ago; he isn't in a hospital."
"That gives him a long rest, and he will feel better."
"When's he coming back home?"
"I don't know. He's feeling lots better, I know, out there."
"He could rest at home."
"I know the doctor told him to go to Denver."
"Visiting his old chum will perk him up and make him well."

The above is an excellent example of the naiveté of children's thinking. We shall develop this topic much further in the next chapter. The incident from Rollo's sixth grade is cited here merely to illustrate the uncritical nature of children's cerebration. Had Rollo's teacher left the dialogue at the point where it had arrived —really, nowhere!—the children would have been satisfied and would have turned to something else. Elementary-school children are generally lacking in fertility of ideas, in the ability or desire to dig out rational relationships, and in true ideational investigativeness. What is on the surface may be accepted with equanimity and content. While there is obviously progress away from these learning limitations as children move upward through the grades, many arrive at the sixth grade still handicapped by them. It is a noteworthy fact, however, that pupils who have been accustomed to learning inductively and have been given consistent training in problem study throughout the elementary-school years, enter the junior high school far better able to use their minds critically and discriminatively in most learning situations.

3. The Child Learns More Characteristically by Rote

If childhood is not the golden age for learning logically, it is undeniably the golden age for learning by rote. Words and phrases, particularly if they are rhythmical, can be absorbed by most children much as water is taken up by a sponge; and, much as the water is given back unchanged when the sponge is squeezed, rote material will pour forth from the lips of child absorbers, likewise unchanged and undigested, when the proper pressure is applied.

One of the greatest concerns teachers in these grades have is to discourage pupil learners from this sort of memoriter acquisition and to train them to learn logically, meaningfully, and purposefully. It is easy for them to learn poetry and rhyme verbatim; the cadence and swing of the words seem to fall into tempo with their own inner rhythms, and singsong reproduction of them is respiratorily and physiologically satisfying. Perhaps it is partly because their earliest introduction to formal learning is through rhyme and jingle and rhythm that they tend naïvely, when they come to nonmetrical, non-poetic themes and contents, to follow the same procedure of rote acquisition. Perhaps, too, it is partly because there is so much happy repetition of primer stories and dramatized tales in the primary grades, resulting in easy and satisfying rote mastery, that they get the idea that everything they learn is to be acquired in the same way. At all events, teachers of these and subsequent grades are often troubled by this widespread juvenile tendency to learn words rather than ideas. In passing it may be noted that this fault is not limited to elementary-school children: mature students, and even teachers themselves, are not entirely immune from it. It is, however, universal among children.

Some teachers, unfortunately, are satisfied with this sort of pupil learning and even actually encourage it by their inquisitional methods, as may be illustrated in the following transcript of a section of a geography lesson about Switzerland. The source book had stated: "Here, too, are the Alps Mountains, with peaks that are very high and covered with snow the year round. Glaciers cling to some of them. Mountain climbers often find them very treacherous."

Teacher: "What mountains are found in Switzerland?"
Paul: "The Alps Mountains are found here."
Teacher: "That is right. What does the book say about them?"

Julia: "It says they are covered with snow the year round."
Teacher: "Right! They have very high peaks, too. What else does the book say about them?"
Tony: "It says glassiers cling to them."
Teacher: "The word is *glaciers,* Tony. Yes, glaciers cling to them. What about mountain climbers?"
Jerry: "They are very tre-cherus."
Teacher: "*Treacherous, Jerry.* That means dangerous. It's the glaciers that are treacherous. Can you see why?
Mildred: "It's the Alps Mountains, and they're awfully high."
Teacher: "Yes, and slippery, too."

No comment is necessary, either touching the nature of the questions asked, nor the meaningless rote replies that punctuated them, nor yet the general deadness and sterility of a lesson that might have had life and borne fruit.

4. The Child Has Little Accumulated Past Learning

As a child pursues his learning pathway, his progress is somewhat in the nature of advance into an unfamiliar and uncharted country. There are no accumulated past learnings to serve as guideposts and points of reference. He must treat each new acquisition more or less as an unfamiliar item until he achieves a background of interpretation by which to label and to pigeonhole it. This lack becomes obviously less crippling as grade succeeds grade, and as more and more nexuses of experience form interpretative clusters. Good teaching demands that the learners shall proceed from the known to the unknown. When there is little known, the progress has to be careful and must be expected to be slow; otherwise, the unknown will continue to be unknown except for some largely meaningless verbal patter that may be parroted by the bewildered and betrayed pupil.

This paucity and unreliability of past learning may be remarked in the early grades in every area. In language and reading, for example, the limitations of vocabulary retard progress in mastery of verbal meanings and make the acquisition of new words slow and uncertain. In the fundamental processes of arithmetic, weak number concepts, coupled with little meaningful experience with adding, substracting, multiplying, and dividing, make progress in a workable understanding of number relationships slow and often discouraging. In geography and history and other social subjects, unfamiliarity with the points of the compass, with surface features, with political divisions, with the past deeds and prowess of man-

kind, with temporal sequences, with economic problems, etc., requires that the learning process shall be carefully charted, guided, and enriched by day-by-day teaching skill and sense.

5. Child Learning Seeks Immediate and Practical, Not Delayed or Theoretical Goals

A college student may be content to spend four years in anticipation of his degree and diploma. An adult may be willing to serve an extended apprenticeship, with little or no present remuneration, in order to master a trade or skill. An artist or sculptor may work months or even years to finish a beautiful piece of art. A scientist may devote years of study in his laboratory, trying to find the cause and prevention of a specific disease, or the secrets of atomic energy, or methods of producing synthetic rubber. Men and women of purpose and vision are able to keep their eyes on a distant, remote objective; this ability is, however, an attribute of maturity.

Children, on the contrary, do not ordinarily warm up to remote goals. Distant objectives intrigue them only as they are eclipsed by intermediate goals. Betsy, returning from her first day in school, queried her mother anxiously whether she thought it was worth the effort to learn how to read! So far removed from her immediate status and needs did reading appear to her to be! "What good is arithmetic, anyway!" exclaimed Mark, out of sorts with his first taste of long division. His father's lame encouragement that it would "help him when he grew up" failed to provide any appreciable stimulation to the boy's flagging mathematical zeal. "If I mow the lawn and trim the flower beds this morning, can I have money to go to the movies this afternoon?" is a question heard much more commonly from the lips of eleven-year-olds than "If I mow the lawn and trim the flowers, can I put some more money in my bank so I can go to college when I grow up?" Juvenile argumentation and logic, used to cajole or to buy or to bribe their elders, seek always an immediate privilege or boon, not one across some far horizon.

Teachers know that their lesson plans must be built around the pupil's aim, and that unless that aim is a close and practical one their efforts will largely misfire and the children will be left cold and unimpressed. "Drink plenty of milk so that you'll have strong teeth." "Save your money so that you'll be rich some day." "Be a good citizen of your school today so that you'll be a good citizen

of your country tomorrow." "Speak grammatically so that you'll get a good job when you grow up." These are exhortations that motivate learning only very slightly, if at all. They may even produce a negative reaction, as in the case of the author who, when admonished as a small boy in school to keep his fingernails clean so that germs would not grow under them, made secret efforts for a long time thereafter to cultivate and protect his dirty nails in the hope that he might be able to see some of the crawling organisms at his very fingertips! Warned also (by another teacher) never to smoke, for if he did he would not grow up to be a strong, athletic type, he smoked secretly because smoking met with the immediate approval of his idol—the village smith, who was not only the strongest man in the locality, but who boasted that he had learned to smoke and chew when he was seven years old, and had done both ever since, and advised all his young admirers to do likewise!

6. *The Child Needs More Guidance, Tuition in Learning*

Inasmuch as we shall devote an entire chapter to the subject of guidance (see Chapter 15), we pause here merely to suggest that the young learner requires a considerable amount of judicious, non-ostentatious help in his learning. He does not know, apart from and in advance of tutelage, the economical procedures, the proper moves, the short cuts, the sources of help and supplementation, the secrets of good form and technique. He learns to do by doing, it is true, but it needs to be *guided* doing. Only when guidance is so stifling and oppressive that it borders upon dictation or paternalistic smothering does it lose its virtue as a pedagogic instrument.

Philip, 10, wished to make a wren's house to put in his yard. He had been looking through a nature magazine and had seen pictures of bird houses of various sorts. He knew that there were wrens about, and he was eager to provide a tenement for them. Using an old wooden box for a foundation, he removed one end of it and nailed on a slanting roof. Then he covered over the open side of the box with a board, boring a sizable hole near the top for the birds to use as a door. The house was mounted on a tall pole in the back yard, and Philip waited for his tenants. But no prospective occupants manifested any interest in the house. Two or three weeks later, his father talked over the situation with Philip. Under guidance of the former, Philip made a brief study of wrens and their ways. He found that they would not go in a house that had an opening large enough to admit birds larger than themselves; that

they must have a floor close up beneath the door; that they do not fancy leaky roofs, any more than do human beings. Dismounting the house from the pole, Philip and his father found another board for the front of the house, and bored a small hole in it. The roof was carefully waterproofed, and a floor at the proper level was laid. Within a few days after the house was back on its pole, some wrens established themselves in it, to the immense delight of Philip, the landlord and fabricator. In the entire process, from start to finish, the actual work was done by Philip. All he needed to learn how to build a wren's house was a bit of casual unobtrusive guidance from a teacher-father who understood the workings of a boy's mind. Had it not been forthcoming, it is highly probable that the boy would have continued just as ignorant of the ways of wrens and inept in building bird houses as he was at the outset. As it was, he learned to do by guided doing.

7. *The Child Is More Dependent upon Interest for Effective Learning*

Much has been written, particularly in recent decades, about the importance of interest in education. Proponents and exponents of the so-called "progressive" group have been in the forefront of this effort to inject into the learning process a real and compelling interest on the part of the pupil, particularly at the elementary level. The philosophy behind the child-centered school insists that if children are allowed freedom and opportunity in the schoolroom to express their purposes and feelings more or less independently of formalized curricula, they will learn more avidly and, in the long run, will acquire more even of the conventional content of the course of study than will other children who follow the traditional procedures. In addition, they will in the process have experienced greater satisfaction.

While we hold no brief for this movement in education, there is no question about the importance of interest as a motivator for effective learning in children. The best teachers have always striven to tap juvenile drives and values in setting up and carrying through the work of the schoolroom. They realize that there will be a zest and an enthusiasm in the efforts of their pupils if they can sense in the task in hand some valuable or challenging personal reference and appeal. And so, as they plan their lessons and revise and modify the course of study from time to time, teachers must ever be on the alert for acceptable and genuine child purposes and motives as points of departure and as points of arrival.

While they have relatively little difficulty in organizing the work

in such subjects as language, social studies, and industrial and manual arts around this center, teachers run into considerable difficulty in finding compelling child motives in certain other subjects, like, for example, formal arithmetic, penmanship, and grammar. Most teachers have to be content with the assurance that they are challenging the interest of their pupils in all areas some of the time and in some areas all of the time, and to admit that 100 per cent interest in all areas all the time is impossible. Indeed, it is quite likely that if their children were consumed every minute and every hour of every day with zeal for learning, they would shortly suffer physical and mental collapse from overexpenditure! It may very well be that the natural indifference they feel on occasion to learning is a safety valve that keeps them from becoming intellectually overheated!

There is small likelihood that any dangerous amount of intellectual overpressure will be generated in pupils who, like those once taught by the author in a country school, are plied with arithmetical fuel such as that afforded by the following textbook problems from which they had to endeavor to generate mental heat, light, and power:

1. Simplify: $1\frac{3}{8} + \frac{5}{4}$ of $\frac{21}{11\frac{2}{5}} - \frac{\frac{5}{6}}{2\frac{1}{2}} \div 2\frac{77}{144}$.
2. A man spent \$4 more than half his money for traveling, one half of what he had left and \$2 more for a coat, \$6 more than half the remainder for other clothing, and had \$2 left. How much money had he at first?
3. Which is heavier and how much, an ounce of lead or an ounce of gold?
4. A and B invested equal sums in business. A gained a sum equal to 25% of his stock, and B lost \$225. A's money at this time was double that of B's. What amount did each invest?

Fortunately, even arithmetic, however, can be salvaged from this absurd and tragic prostitution of pupil time and good nature, as you may well know if you are accustomed to teaching it from the standpoint of its possible challenge to and interest for the pupil learners. So may all other subjects, at least to a degree. By eliminating anachronistic and impractical content, and by finding points of interesting child contact for what is left, it is by no means an impossible task to infuse most schoolroom learning with the glow of personal interest and even enthusiasm. Indeed, teachers' magazines and professional journals are filled month by month with sug-

gestive lessons in every subject that proceed from the thesis that all learning can be interesting, and that most of it ought to be made so.

MANY THINGS ARE LEARNED BY CHILDREN WITH LITTLE OR NO TUITION

Notwithstanding the fact that society sets up schools and provides teachers to guide and counsel, the circumstance is not to be forgotten that children's learning is not restricted to four-roomed walls and solicitious pedagogues. A staggering amount that they learn comes without benefit of schools and teachers. Much is "caught" from others, absorbed from the environment, adopted imitatively from contact with other personalities, acquired incidentally or purposefully from the mores, from the screen and the press, from the playfield and the market place, and from the simple imperative of living and adjusting in the social group.

Non-school, or extra-school, learning proceeds from the earliest weeks of infancy to the closing years of life. The school represents merely a formal interlude during which clarification and systemization and extension of the mental content can be provided for. Long before he gets to school, the child has achieved a broad learning base. Constantly after he leaves school, he will continue to rear mental achievements upon this base. In the preschool period he learns, for example, to walk, to run, to jump; to talk, to laugh, to listen; to explore, to query, to experiment; to control muscle, to perceive meanings, to associate ideas; to dress himself, to keep himself clean, to feed himself; to obey, to help others, to share his possessions. At least, he has mastered the rudiments of these arts.

One occasionally still comes upon, even in a country noted for its schools and its general literacy, an individual who never went to school, or who went for only a very brief period. Save for gaps in his formal knowledge and skills, which early schooling alone can supply in most cases, he gets along amazingly well in the world. He may be compelled to make a cross instead of signing his name, and to forego the pleasures and advantages of reading and writing. He may know nothing of formal history and geography and mathematics and science. But he knows how to live with others, how to make a living, how to use his leisure time satisfyingly. These are, or may be, extra-school accomplishments, and their importance must not be discounted.

During the elementary-school years this extramural learning

goes on apace. While the school, by the very fact that it exists and that it throws children together, may be a background factor, it does not purposefully and specifically promote incidental, unprogrammed learning. In their associations with their fellows within, but to a greater degree outside the schoolroom walls, children acquire ideas, skills, and attitudes the importance of which cannot be estimated. First of all, they learn language—not the stereotyped and often academic and halting language of the classroom, but the flexible, expressive, and living language of human intercourse as embodied in the vernacular. The incessant practice they have in this form of communication in their play and other outside contacts with one another helps them to acquire a speech and a language that is rich, facile, readily understandable, and filled with color and metaphor.

Children learn, too, in the second place, most of their motor skills outside of school. Through play activities, through pursuing their special interests, and through competition with and emulation of their mates, they amass a complement of neuromuscular skills that widely supplements the narrower schoolroom skills.

Donald, eleven years old, exemplifies well this proficiency in a number of motor achievements:

> He is an excellent shot with an air-rifle; he has a sling-shot which he made out of a forked stick, two heavy rubber bands and a piece of leather; he has a bow and several arrows with which he enjoys practicing archery in the back yard; he is an inveterate whittler with his jack-knife; he rides his bicycle nonchalantly in and out among vehicles and pedestrians; he is an excellent swimmer, and can paddle and row; he has learned to tie several different kinds of knots in rope; he beats almost every time at croquet; he adores playing ball, and is a good catcher and pitcher; he likes to "shin" trees and to climb ropes; he enjoys both ice-skating and roller-skating; he likes to manipulate mechanical puzzles; he has a jig-saw with which he cuts out picture puzzles; he can "skip" rocks over the surface of the lake; he can weave and plait leaves; he can keep his balance well in walking a rail or a fence or wall; he likes to wrestle and put on boxing gloves; he can turn handsprings, stand on his head, and "walk" on his hands.

Here is a catalogue of some of the many motor achievements that boys often master quite apart from and outside of the schoolroom influence. They have no teachers, follow no particular course of study; the only impetus that encourages and drives boys to attain

them is the perpetual urge to ego-projection and self-realization among their similarly striving fellows. The total effects of this motor learning and self-discipline upon the long-time character, personality, and values of the participants are beyond all calculation.

Finally, and by no means least important of all, children learn many a lesson outside of school in how to live happily and successfully. Schools and teachers help from a theoretical and from a narrowly schoolroom point of view, but the principal teacher of this art is the school of juvenile experience outside. Lessons in self-control and stick-to-itiveness; in cooperativeness and commitment to a common purpose; in repartee and give-and-take; in good comradeship and citizenship; in planning and organizing and executing —these foundations become the social basis on which adult living later on is principally constructed. Important also in this basal juvenile group learning are those lessons in flexibility of viewpoint, in readiness to change one's mind without embarrassment, in enthusiastic identification with causes and purposes, that can be learned best only in the common life experience of children on the loose.

LESSONS IN DEMOCRACY

The modern school in a democratic state such as ours needs to train its young patrons in good citizenship. It is noteworthy that in totalitarian states determined efforts are made by teachers at all levels to indoctrinate youth into the particular philosophy and tenets of the national persuasion. In the U. S., we have taken it so naïvely for granted that children will "just grow" in their allegiance to the democratic principle that, apart from somewhat emasculated lessons in "civics," including the Constitution of the United States, we have paid little attention to real training for lively and serious and aggressive citizenship. While not neglecting the study of other forms of government and other sociological ideologies, our schools need to rethink and to revise their lukewarm and formalized citizenship programs to the end that their students may be as passionately committed to our own ideology as are Marxian and Fascist youths to theirs. With our cosmopolitan population and our hyphenated citizens of often uncertain allegiance, and with less than 50 per cent of our voters commonly exercising the right and duty of the franchise, it seems obvious that a new emphasis in American citizenship needs to be promoted by the schools.

In the more restricted sense of learning to live harmoniously with

children of other races and extractions, democracy flourishes in our American public schools. There are no schools on earth where so many children of so many different nationalities and of so many different social strata are thrown together in a common environment. For the most part, our schools have risen to the needs and the opportunities presented by such a situation, and with excellent results in terms of juvenile tolerance and appreciation. Black and white; Oriental and Occidental; Jewish and Gentile; Scandinavian and Mediterranean; Lithuanian and Chinese; Polish and Irish; they are all there, in the gigantic melting pot of the American public school. Children from both sides of the tracks; scions of the "four hundred" and children from the tenement districts and the slums; children with economically much and children with economically nothing back of them—all meet on the common ground of the school. The opportunity presented by the day-by-day intercourse of this polyglot mass of juvenile humanity for learning to live in harmony and even in mutual understanding and admiration represents one of the greatest challenges presented to teachers and schools.

The public school—in contradistinction to the private school—becomes thus unquestionably the most essential formative force in the social living of forty million children. The circumstance of their mutual association does not and should not mean a leveling off or a standardization of the American "type." It should mean, rather, along with the stimulation of a common zeal for citizenship and a common faith in and commitment to the great democratic experiment, a stimulation of individual prowess, individual bents and capacities, individual goals and ambitions. It should mean also a stimulation of profound appreciations for the contributions of other races and other lands whose children meet one another in our cosmopolitan schoolrooms. It should mean a deepening and abiding respect for all nationals, and a friendliness that will do far more toward bringing in an ultimate day of international good will than will all the enactments of legislatures and parliaments and all the good efforts of world governments and federations. The latter are handicapped by the brittle tempers and the often adamantine preconceptions and convictions of inflexible adults; the young, on the other hand, are plastic, flexible, and pervious to new ideas. In our great public-school system, they may learn to understand and to respect and to appreciate the children of the world. In this fortunate fact lies tomorrow's greatest hope of world accord.

GOOD LEARNING REQUIRES ACTIVE AND ALERT MENTAL ATTITUDES

When engaged upon their own spontaneous projects and tasks, children are never passive. Their mental attitudes are alert; they summon to their aid all their physical and mental resources; they apply and discard without let, often exhausting themselves in the process. The incident of the ball that rolled into the drain, referred to in the early part of this chapter (page 248), typifies this characteristic mind-set of children when occupied with their own affairs. While without tutelage, as we have seen, there may be a surplus amount of trial and error in their spontaneous activities, this liability in no way interferes with their enthusiasm and their sustained attention. Here is learning at its best.

The difficulty with a good deal of the learning children are supposed to achieve at home and at school is the unfortunate circumstance that they bring to it a passive or indifferent attitude of mind. In the home situation, when, for example, a boy's chief immediate concern is to satisfy his ravenous hunger at table, he is lectured again and again about habits of politeness, using his fork instead of his knife, saying "Please" and "Thank you" at the appropriate places, asking to be excused when he has finished, without bolting from the table like a cannon ball. Mental attitudes on such occasions are active toward getting filled up, using the shortest linear route to the muffin plate, and hurrying to finish in order to run off to play, etc. In such circumstances, attitudes toward decorum and adult standards of propriety are passive, becoming momentarily and fleetingly active only when involuntary attention is challenged by a parental stare or frown, or by the restraint of an outstretched hand, or by pressure upon one's ankle or knee.

In other home settings also, the slow rate and dubious readiness with which children learn seem incomprehensible to parents, who fail to understand that an active attitude must be maintained during any learning process if it is to be economically sustained. Full and complete attention must first be paid to the instruction or activity at hand, thus guaranteeing initially at least an active and alert mental attitude. Parents often find it difficult to teach children to remember directions explained or errands assigned because the juvenile assignees are a thousand miles away in their thoughts at the time of assignment, and because their restlessly active minds are preoccupied with other more personally appealing matters. The

following verbatim dialogue between ten-year-old Joe and his mother illustrates the point nicely:

Mother: "Home, Joe?"
Joe: "Yes, mother.—We're playing scrub right away on Swasey's lot."
Mother: "Did you give the message to Aunt Helen?"
Joe: "Er- er-, what message, mother?"
Mother: "Didn't you stop by Aunt Helen's on your way home from school?"
Joe: "Er- er-, no, mother. Did you want me to?"
Mother: "Joe, sometimes you provoke me terribly.—Didn't I tell you to be sure to tell Aunt Helen I would come tomorrow instead of tonight?"
Joe: "Did you, mother?—I don't remember."
Mother: "You never remember anything you're told! Whatever is the matter with you, anyway?"
Joe: "I guess I just forgot.—I'm going to be the pitcher this afternoon. Mr. Hartley is coming over to watch us play. He may let us organize a sixth-grade team! The fellows are all excited about it. I hope I can be pitcher! Boy, look at that muscle!"

Parents do not play exactly a losing game with their exasperatingly preoccupied children when they try to teach them to be obedient, attentive, and circumspect. They must understand, however, that myriads of things compete for wavering juvenile attention, and that only as they make sure that children receive active and vivid impressions can the latter be expected to learn and to exemplify the ideals and standards of approved social intercourse.

Teachers have long been trained in the importance of active and alert attention on the part of children in all formal learning situations. Often, however, they forget to observe the principle. In the heat of stress of teaching, they sometimes outstrip the slow mental meanderings of their pupils and leave them bogged down listlessly and indifferently in the labyrinthine and inviting sloughs of distraction. There is no pedagogic virtue in continuing a drill in the fundamental processes of arithmetic, for example, one moment after active and interested attention lags; or in elaborating upon the hardships of the frontier, or the geographical features of tundra, steppes, or pampas, or the implications of the Athenian Oath, when active and focused pupil attention is no longer in evidence. Much of the emphasis that teachers place, in their "morning talks," and in their forenoon and afternoon and perennial counseling and har-

anguing, upon such abstractions as honesty, good citizenship, kindness, politeness, generosity, and the like, falls upon jaded and therefore deaf ears. Fortunately, most teachers understand this and school themselves to compress much of the material of learning into brief, striking, and dramatic forms of presentation. A learning situation in which the teacher is the only alert and mentally active individual in the room is a poor and uninspiring one indeed.

PERTINENT QUESTIONS FOR DISCUSSION

1. Present evidence from your observation of young children in support of the principle of the plasticity of the young nervous system.
2. What evidence can you cite of the brittleness and non-plasticity of the old nervous system, in contradistinction to the young?
3. Cite several instances of trial-and-error procedures that you have observed in children's learning.
4. Make a list of several obstacles or challenges that children known to you have encountered, with the solutions they reached.
5. Go through your list in No. 4 above, and indicate in each case the nature of the motivation or drive to conquer the obstacle.
6. Is not the vouchsafing of freedom—the third essential in children's learning discussed in the early part of the chapter —likely to be time-wasting and hence uneconomical? How, then, can freedom as a principle of learning be justified?
7. Contrast children whom you have had, from the standpoint of different mores and environments; e.g., a rural child, an urban child, etc.
8. How do children reflect the home backgrounds from which they come?
9. Make a quiet analysis of the occupational status of the parents of your children. Do you note any individual differences among the children that reflect their varying social and occupational extractions?
10. Have you had any opportunity to infer differences in educational content and emphasis in different communities as evidenced by children who transfer from the schools of one locality to those of another?
11. To what extent exactly is it pedagogically true that "childhood is a golden age for learning"?
12. Observe in a first grade the different materials and devices used to establish learning through sensory appeal.

13. Cite examples of children's naïveté in thinking and associating.
14. Are you troubled frequently by your pupils' tendency to learn by rote materials that should be mastered logically and ideationally?
15. Outline a fifth-grade lesson you would teach on *leather.* Show what past learning and experience you could take for granted as a point of departure.
16. What evidence have you to the effect that in their learning children prefer goals that are practical and immediate rather than the reverse?
17. Give an example of skillful guidance that you have given a child in some learning situation in which he was himself inadequate.
18. Should all learning be interesting, all schools be "child-centered" schools? Defend or refute the question.
19. List other things besides those enumerated in the chapter that you have known children to learn without tuition.
20. In what ways and through what means are the children in your school learning to appreciate and to love our democratic ideology?
21. What indications have you that your children are growing in their respect for and appreciation of their mates who stem from other cultures and other lands or strata?
22. Contrast in a word picture two pupils, one of whom is manifesting active and alert mental attitudes, the other of whom, in the same situation, is bored and indifferent.

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CHAPTER 14

HOW CHILDREN THINK

Some Children To Identify in Your Room

A child who . . .

(1) is egocentric in his thinking;
(2) protects his personality vigorously in the play situation;
(3) misconstrues causal relations;
(4) seems to be unusually proficient in abstract thinking;
(5) wish-thinks a great deal; one who is very practical-minded;
(6) is irked by requests for verification of his judgments and opinions;
(7) has been given a Binet test and whose status is definitely known;
(8) fumbles about mentally in his reasoning more than most children do;
(9) reasons surprisingly well;
(10) has a problem about which he reasons sensibly;
(11) does his assigned tasks well principally to please the teacher;
(12) works at problems because of some derived or secondary interest;
(13) gets keen satisfaction out of reflection and reasoning;
(14) lacks home training in solving his own problems;
(15) appears to have had good training in thinking for himself;
(16) shows evidence of beginning to generalize his experience;
(17) practices the axiom "try, try again" characteristically;
(18) is compensating his limitations or frustrations successfully;
(19) reacts with strong emotion to frustration;
(20) is a confirmed rationalizer.

GENERAL ORIENTATION

We should understand at the outset that the term "thinking" is employed somewhat loosely by the layman. To him, the mere flow of ideas through the mind is "thinking." "A penny for your thoughts!" is a commonly heard remark made by one friend to another who is, at the moment, in the midst of a "brown study." He may be "thinking" of an experience he had yesterday, or last week, or last year. He may be "thinking" of what he would do with a million dollars, of what he is going to have for supper, of where he

will spend his vacation next summer. In all these bits of cerebration, he is more or less passively sitting back and watching, as on a screen, familiar or reconstructed events unfold themselves before him.

In his speech, too, the layman uses the verb "to think" very loosely. For example, one "thinks" it is going to rain, or that Smith is a villain, or that it must be about dinner time, or that he will lie down and take a nap, or that a hat or a dress is becoming or unbecoming, or that it is a shame to treat anybody so, or that the moon is made of green cheese. There is no end to situations or circumstances about which people thus "think."

It is important to understand that thinking, strictly speaking, is none of these things. True thinking is purposive in nature; it aims to arrive, through a process of reasoning, at a conclusion or a result. Far from being merely the passive flow of images and ideas through the consciousness, thinking represents a logical marshalling of experience, and the ideas retained from experience, toward a conclusion or a judgment. A person is thinking when he is comparing, abstracting, generalizing, deducing or inducing, testing hypotheses, searching for explanatory or interpretative data, resolving to act in accordance with thought-out conclusions, etc. In this respect, man is separated from the lower animals; they may and probably do have faint memorial experiences, but they can hardly *think* in this sense of the term.[1]

CHARACTERISTICS OF CHILDREN'S THINKING

1. It Suggests Egocentrism

As we have noted before (see Chapter 7), the child is himself central in his environmental setting. Every experience he has must peculiarly revolve about himself. The out-thereness of events and experiences is of far less consequence than the fact that they affect and influence *him*. In no way does this child-centric nature of the universe manifest itself more strikingly than it does in the child's thinking processes. Piaget, the French investigator who has contributed richly to the study of child psychology, was of the opinion that approximately 50 per cent of all thinking under five years of age is egocentric, but that within the next two years the amount of

[1] For evidence of ability among anthropoid apes to think, or at least to manifest insight, see W. Koehler, *Mentality of apes* (New York: Harcourt, Brace, 1925).

selfish reference in thinking drops to approximately 25 per cent. Other investigators, while there is some disagreement concerning amounts, tend to agree that there is much egocentrism in childish thinking.

The values a child ascribes to objects and persons and events, particularly during the earlier years of his life, are patently personal and self-centered. A mama is to love one, i.e., to love *me;* the game is for me to shine in, or for my entertainment; a nickel is for a cone or a candy bar for me; a pile of leaves is for me to play about in and scatter back to the four winds; a box of candy and a cookie jar are for me to regale myself from; a policeman is to avoid, particularly if I have just been participating in some unsocial activity about which he may have found out; a car parked by the door is for me to climb into and make imitative moves to drive; a report card is for me to alter or, if possible, to keep from the eyes of my parents—or, indeed, for me to exhibit to all and sundry, with due pride and circumstance; the comic section of the evening paper is for me to appropriate and mull through before anybody else can do so; a tricycle is for me to ride, exclusive of the rights or the equity of others. Thus we might multiply endlessly examples showing that the child naïvely puts his own interpretation upon everything that crowds upon his senses. Socialization, or the transfer of egocentric values to common or social values, while it may by wise training be hastened somewhat in most children, is definitely a readjustment of values that occurs in middle and later childhood rather than in early childhood.

These egocentric values in children's thinking may be further illustrated in the play life and experience of young children. You will observe that when they are engaged in social play the rough edges of each personality in the group protrude raspingly as one tangles with another. "It's *my* turn!" "I'm first!" "I'm not going to play then!" "Give it to me!" "It's mine!" Such vigorous protests and contentions as these punctuate almost every move and part of the game. Struggles to possess a ball, or a coaster, or a swing, or a teeterboard are familiar to every parent and every director of juvenile play. Argument, vociferous denunciation, snatching, pushing, running off, and the like, are in this same category of egocentric reference. So are sulking, petulance, holding oneself angrily aloof, etc., when the wave ebbs and, for the next moment, at least, carries other equally egocentric juveniles onto the crest.

Possibly the reason why egocentricity is so strong in a child is be-

cause he comprehends only dimly as yet either the rights and privileges, or the feelings and values, of other people. Experience is vivid for him only as it impinges upon himself. A parent or a teacher is frequently amazed, not to say a bit shocked, when, after reading a long lecture to a child on the general subject of sharing his toys or sweets with his mates, or sympathizing with a bird whose nest he has just rifled, he observes the same child shortly afterward still appropriating his possessions selfishly to himself, or continuing to annoy or to worry a bird or a pet. The capacity to think in terms of the other fellow, or abstractly in terms of what is equable or right, evolves slowly; indeed, by the time of school entrance at five and a half or six years of age, it is still rather sketchy and undependable.

2. The Child Has Limited Ability To Perceive Relations

Clear and logical thinking implies in the thinker considerable ability to understand relationships. One cannot, for example, reach any valid conclusion about Jones as a good citizen unless and until one can grasp the meaning of good citizenship as related to honesty, patriotism, civic consciousness, cleanliness, and a host of other entities that are implicit in its meaning. Because of his sharply restricted experience, the young child is obviously hampered in the readiness with which he can "see" relationships. By the age of five, for example, Piaget found that Swiss children could differentiate correctly their right and left hands, but when they were asked to point out the right and left hands of persons facing them they were unable to do so. While they had absolute understanding of a specific hand as being right or left on themselves, they could not apply this knowledge in a logical situation.

Nobody who has had experience with young children's thinking and inferring could fail to observe this common error in their understanding and interpreting of relationships.

Nellie, aged two and a half, who was seeing her grandmother for the first time, found her very intriguing because of a pleasant smile and hug that she had been given; a moment later, however, when grandma turned her head, Nellie's eyes opened with wonder as she stared at the gray pug on the back of her head. Here was a connection which she found difficult to make—that between grandma face-to and grandma back-to. To Charlie, three years old, there is much confusion in identifying Uncle Tom and Aunt Belle, and he frequently is heard to address them, respectively, as Uncle Belle

and Auntie Tom, much to the amusement and delight of the two elders. Five-year-old Jean explains that when God wants it to rain, he pulls a great chain in the sky, "like a shower-bath cord, only bigger" and gives the world a big shower bath. Six-year-old Ethel is satisfied with the explanation that baby sister Myrtie came in a bag of flour, and so informs everybody in the neighborhood.

In a way this ingenuousness in thinking out relationships and accepting simple or bizzare explanations underlies much of the delightful fancy of children. If the young learner were less naïve or more exacting in his study of relationships, he could hardly be content to accept the fate of Humpty Dumpty, or the feat of the cow jumping over the moon, or the likelihood that an old woman with many children could live in a shoe, or that a magic carpet could transport people through space, or yet that Goldilocks could calmly fraternize with bears or Alice hobnob with rabbits and dormice! The warming Santa Claus myth, the tale of Hansel and Gretel, the adventures of Peter Rabbit, the improbable enchantment of Never-Never Land, would arouse only the scornful risibilities of children. As it is, with minds fresh and young and uncritical, they can accept fable and myth and fairy tale quite as well as fact.

3. The Child Misconstrues Causal Relations

An interesting angle of this uncritical and ingenuous misinterpretation of relationships is to be seen in children's limitations in understanding causal relationships. In the Terman and Merrill Revision tests, for example, the question is asked: What is foolish about this statement: "They found the young man locked in the room with his hands tied behind him and his feet tied together. They think he locked himself in." Answers sometimes given by children less than seven years of mental age are: " 'Cause he locked himself in and tied them together"; "Because the lock's outside not inside"; "Because they think he locked himself in," etc. Contrast these minus answers with such plus answers as: "Somebody had to tie him up like that and lock him in"; "Some burglars tied him up. He couldn't have got that way himself," etc.

Among younger children, this failure to connect events with their logical causes is sometimes most striking.

Five-year-old Patricia begged to be allowed to go out in the rain and play. When advised by her mother to stay in the house where it was dry, the child exclaimed naïvely: "But I want to grow fast." Her father had remarked earlier in the morning that the rain would

make things grow nicely in his backyard garden. Five-year-old Jennie examined appraisingly the features of her aunt, recently arrived for a visit, and then, turning to her mother, asked: "Oh-h, isn't Aunt Mary dretful old?" When her mother, somewhat embarrassed retorted that Aunt Mary was younger than Jennie's own mother, the child insisted: "But she's got *gray* eyes!" Seeing a plastic dog on its haunches in a show window, four-year-old Tom pointed it out to his father and remarked: "See, daddy, that doggie is tired, isn't he?" When asked why he thought so Tom explained: "He's sittin' down." The faucet over the kitchen sink had not been completely shut off, and it was emitting an audible gurgling sound. "Poor fassit has a cold!" exclaimed Josephine, four years old, and ran with her handkerchief to attend it. To one child it rains because God is crying; to another, snow is feathers falling down from God's bed; to another, the weather cock on the barn ridgepole, turning about erratically in a changeable wind, is adjudged to be hopping around to keep warm; a pet rabbit is "lame, like grandpa"; the pavement becomes suddenly anthropomorphic and "came up and struck Billy's head"; the radio "has a man inside, and he sings, and sometimes he's a woman"; street lights burn at night "so the postman can read the numbers"; a snake "is a big worm that's eat'n lots of other worms."

These simple and, to the child, entirely plausible explanations illustrate the naïve understanding of cause and effect relationships that characterize much of the thinking of younger children.

The child is in this regard, after all, but father to the man, for we have innumerable observed instances in which adult thinking is not one whit more logical or less uncritical. For example, we need only to cite the explanation offered by the man who slipped and sprained his ankle badly, and who recalled that a black cat had crossed his path earlier that day, and that was why he had bad luck; or the assurance with which another man goes about his affairs, serene in the consciousness that in his vest pocket he carries a rabbit-foot to ward off disease and ill luck; or the implicit faith still another man places in some get-rich-quick scheme, or in a sweepstake ticket he has purchased, or in the correspondence course he is taking in how to be invincible, either as suitor or salesman. If anything, the thinking of young children, uncritical and naïve though it is, is more refreshing and valid than that of the superstitious grownup. The principal difference is that the children will improve in their ability to relate cause to effect and effect to cause, whereas the grownup offers little promise of improvement!

4. Children's Thinking Is on an Empirical Plane

Adults, because of the breadth of their general experience, are able to make considerable headway in reasoning about abstract problems and about hypothetical situations that might occur, but with which they have had no specific experience. It is this ability of cultured adult minds to envisage reform, and to fashion the blueprints of a more Utopian civilization for tomorrow, that lies at the basis of strong movements to overthrow tyranny, or emancipate slaves, or push out the frontiers, or conquer disease and suffering.

The thinking of children is sharply limited to the concrete and the experiential. Except when precociously stimulated by propagandists or seers or religionists, children do not of themselves ascend to the pulpit, embark on a crusade for the Holy Sepulchre, adopt the "come-now-and-let-us-reason-together" imperative. Their lives are spent in a very material, objective world of specific and concrete and tangible events and situations. Their internal mandate is, as we have seen, to master as much as possible of all this plethora of affairs and personalities and circumstances that impinges provocatively upon their senses. Such being the case, it is inevitable that their thinking should be largely concerned with problems arising out of these everyday and imminent stimuli. It is the common experience of clinical testers that so long as the problems presented to a child testee are within his orbit of experience, he is willing to attack them positively; the moment, however, a situation is presented that taps areas of mental life and experience with which he is unfamiliar, he responds only with evasion, or restless desire to escape, or eloquent silence. In the Stanford-Binet vocabulary test, for example, when an average six-year-old is asked to define the meaning of "scorch" or "muzzle" or "juggle" or "Mars," he is helpless and indifferent.

But an ordinary six-year-old child can remember how to string a bead chain that he has just seen somebody else do; he can make the right associations with such words as "orange," "envelope," "tap," etc. He can reason out what is lacking on a wagon that has only three wheels, or a rabbit that has only one ear, or a glove that is minus one of the fingers. He can also plan the shortest route over a simple map from a boy's house to the school to which he wishes to go. With these things he has had either direct or observational experience. So, too, the six-year-old child has no insuperable difficulty in thinking how to remodel a kite that fails to mount into the sky,

or how to teach his dog to "speak," or how to climb to the highest branch of the maple tree, or what to do to wreak vengeance upon his chum for laughing at him, or what to spend his dime for, or what colors to paint the house he has just sketched, or how to impersonate Big Billy-Goat-Gruff. Solutions to these problems come right out of his daily life experience, and for them he has a background of ideas and information that never fails.

5. Children's Thinking Is Often Wishful

The thinking of children has much of the wishful element in it. Their physical and social inferiority handicaps them constantly in their desires to control and to manage their universe; hence they tend readily to wish-think achievement, mastery, and preferment. Like their elders, though for somewhat different reasons, they frequently throw logic and common sense out the window and believe what they want to believe. To believe that something is going to happen, a child needs only to wish for it. Through this deceptive mechanism, a boy may consider himself clever enough and strong enough to trounce another boy actually much more competent than himself; or he may be serenely sure that tomorrow will dawn bright and clear for the picnic, though all sensible indications may be to the contrary. Through the same comforting mechanism, a girl may believe herself perfectly adapted to become a movie actress; or she may be convinced that she is the most popular girl in school, or that her ship will shortly come in laden with the substance of all her dreams.

Nat, aged ten, had just sent in an answer to a puzzle he found in a boy's magazine. This is his version of what the inevitable sequel to the affair would be:

I'll get the bicycle, all right. They'll have to give it to me. My answer is the best one they'll get. I worked hard over that contest. Dad helped me some, too—not very much, but a little bit. All you had to do was fill in some missing letters in some words that would make them make sense. They'll probably write me back a letter in a couple of days and tell me they've shipped the bicycle. It only has to come from L— [about 200 miles away]. I might even decide to go down to L— and ride it home myself. I could do it, all right; it isn't much of a trip on a bicycle—not for me. I'm going to keep it in the garage, side of the car. I'll challenge Hollister to a race over to P— and back. I'm going to have a bundle carrier for it, and then I'll have old Mr. Powell give me a job on Saturdays delivering

groceries. I'll probably make a lot of money. Gee, I'm glad I saw about that contest!

6. Verification Is Not Usually Deemed Needful

In much of the simple run-of-the-mine reasoning done by children, the need for verification is not always felt. This is especially true in thinking situations involving abstract relationships rather than concrete data, and with children under ten years of age.

Discovering, for example, that pieces of wood would float, seven-year-old Jack proceeded to verify the thing by throwing into the water a number of small sticks that lay at hand. Not yet entirely convinced, he ran off to tug a heavy piece of joist to the water's edge, and thrust it, too, into the stream. The fact that it floated, like the smaller pieces, verified his reasoning. The same child, however, coming into the house at bed time, kept looking back at a bright, full moon. "The moon follows me," he remarked. "What makes you think so?" asked his father. "It's always there," was the reply. "The big maple tree is always there, too," suggested Jack's father, "but it doesn't follow you, does it?" Jack yawned. "The *moon* does!" he reiterated, serene in his conviction. "It follows you, too, and everybody." Obviously Jack had as yet no felt need of clarifying his concept, either of "moon" or of "following." It was sufficient for him to apply it loosely to the omnipresent moon over his shoulder.

The fact that, as we have noted heretofore, younger children are egocentric is perhaps suitable explanation for their faith in their naïve, unverified judgments and opinions. At their early age, everything has a personal reference, and it is difficult to dissociate encountered objects and situations from an egocentric setting and to relate them impersonally to their peculiar and logical backgrounds. Not unlike their adult mentors, children tend, once a snap judgment has been enunciated, to repeat and to cling to it tenaciously. Note the following dialogue between six-year-old Mary and her neighbor:

"Isn't your Aunt Harriet visiting at your house?"
"Yes. She came yesterday."
"She's your mother's sister, isn't she?"
"No, Aunt Harriet is my *aunt.*"
"Is she Jane's aunt, too?" (Jane and Mary are sisters)
"Yes, she's both our aunts."
"Jane is your sister, isn't she?"
"Yes."
"Has Jane any sister?"

"No, she's my sister."
"I still think Aunt Harriet is your mother's sister, and you are Jane's sister."
"Aunt Harriet is my aunt, and Jane's my sister."

THE GENESIS OF REASONING

The mental life of children, as expressed in their thinking and reasoning, is difficult for psychologists to understand. Questioning them regarding it is valueless, because they are unable to describe in words what goes on in their minds. From the adult point of view, thinking follows certain specific patterns that are known and understood; child thinking is of a different order, and its skeletal framework cannot be clearly distinguished. Child logic and adult logic may be as far apart as the poles, yet both may be valid. If we understood the experiential background, the laws of association that operate in children's cerebration, and the theory of values that obtain for eight-year-olds, we could perhaps better diagnose their thinking processes, and we might conclude that these are quite as logical and acceptable as those of their elders. As it is, however, we can only evaluate their thinking and reasoning in terms of accepted adult systems and procedures.

No source of data and inference regarding the thinking of children is more reliable than their reactions to the thinking and reasoning situations set up by the Stanford-Binet tests. These tests have been administered so widely at each age level from the second year upward, and the growing abilities of children to solve problem situations have been as a result so well graded by years, that they provide us with much valuable information. In the following paragraphs we shall attempt to indicate something of the evolution of the thinking and reasoning abilities of children as indicated by their reaction to these tests.

The Second Year

At this level, the child's reasoning and thinking ability is little more than what is required to identify certain familiar objects and to copy a simple constructional model. To the extent that thinking is required to answer the stereotyped query, "What do you call this?" (pointing to a picture of the object), with the answer, "It's a watch," "It's a house," "It's a basket"; or to fit a circular block into its groove; or to remember a tower built of four blocks long enough to reproduce it by oneself; or to remember "4-7" long

enough to repeat it back to the examiner—to that extent children in their second year can carry on a valid thought process.

The Third Year

At this level, further identification of pictured objects occurs, as does also copying a little more complex block model. Considerable actual thought is required in copying a circle; more still, in carrying out directions, like "Put the spoon in the cup"; and still more in determining which of two short sticks is the longer. Most indicative of all of the three-year-old's ability to comprehend a situation and to give a reasonable reply is his answer to the question, "What must you do when you are thirsty?" Two opposite degrees of ability are reflected in the answers: "I ask my mama for some water," and "I'm hungry" or "Eat dinner."

The Fourth Year

The four-year-old child can recall one of three objects that has been taken from the table while his eyes were shut; he can tell what is missing in an incomplete picture of a one-legged man; he can identify a pictured object exposed among other objects when asked such questions as: "Which one do we cook on?" "Which one catches mice?"; he can judge which of two pictures is prettier; and he can remember three simple serial directions long enough to carry them out.

The Fifth Year

At five, the child's ability to think is measured by the competence with which he can fold a sheet of paper in the same way the examiner has just folded one; by the aptness with which he can give appropriate definitions for such common objects as "ball," "hat," and "stove"; by the readiness with which he can copy a square; by the faithfulness of his rote memory for a brief sentence; and by his ability to count up to four objects presented in a row.

The Sixth Year

Memory for the meaning of simple words and for a simple bead chain design is measured at this level. More strictly a measure of reasoning ability, however, is the problem presented to the testee in selecting the shortest way through a maze. In order successfully to accomplish this assignment, the child must choose between different alternatives, and must be able to "keep in mind the end to be

attained." Unquestionably, as Binet originally contended, this latter is one of the earmarks of intelligence.

The Seventh Year

The ability to think in terms of symbols is measured at this level by determining the child's cleverness in making discriminating reactions, as, for example, in explaining how iron and silver are alike. In such a situation one must be able to understand the meaning of "alike," and also keep in mind the critical idea. Inability to do one or the other, or both, of these things is indicated by such commonly made, but unacceptable, answers given by seven-year-olds as "Iron is white and silver is white," "They can break so easy," etc. Another seven-year problem requires the child to think out a satisfactory answer to such questions as what he ought to do if he breaks something that belongs to somebody else, or if somebody hits him without meaning to do so, etc. If the testee can indicate by his answer that he understands some sort of restitution or apology to be proper in the former case, and excusing or overlooking the act, in the latter, he passes both tests.

The Eighth Year

Several of the tests at this level fathom the child's ability to think and to reason. In one of them, he is asked to detect the absurdity in several statements containing impossible or unreconcilable phrases. If he can spot the incongruities, he passes the test. In another, ability to think in abstract concepts is determined by the child's skill in telling the similarity and difference between objects named; e.g., an airplane and a kite, a baseball and an orange, etc. In still another, he is asked what makes a sailboat move, what one ought to do in certain problematic situations, etc.

The Ninth Year

Reasoning is required in several of the tests at this level. In one of them, the testee must reproduce in a drawing how a folded sheet of paper from which a notch has been cut would look when unfolded, the folding and cutting of an identical sheet having been done in his presence by the examiner. In another, the testee must detect verbal absurdities and incongruities in statements somewhat more complex than those at the eighth-year level. In a third, he is directed to think of the name of a color that rhymes with "head," of a number that rhymes with "tree," etc. In a fourth situation, he

must demonstrate his ability to reckon change in a concrete buying experience, in which he gives the storekeeper a quarter for a four-cent purchase.

The Tenth Year

Detection of absurdities in pictures demonstrates the child's general comprehension of a dramatic scene and his ability to reason out the incongruities in it. In another test at this level, the child is asked to give two reasons for not being noisy in school; why an automobile is preferable to a bicycle, etc. Often children fail this test because they "get lost" in their verbiage and run on in irrelevant patter. A somewhat different analysis of a child's ability to think is afforded by the task of naming as many words as he can in one minute. If he can get twenty-eight in the time allowed, he passes the test. Still another indication of his ability to use his mind selectively is afforded by a child's success in repeating six digits after the examiner has pronounced them. Both raw verbal memory and skill in fixating the mind upon a difficult task are measured by the digit situation.

The Eleventh Year

At the eleven-year level there is a test of the child's facility in noting absurdities in statements definitely more subtle than those used in similar tests at earlier levels. A real reasoning situation is presented in another eleven-year task, which calls for meanings of abstract words, like "conquer," "revenge," etc. Ability to express relationship between ideas, as in this case, involves comparison, abstraction, and generalization, all of which are required in good thinking. Another task is one in which the testee must reason out why a certain consequent follows from a given cause; another calls for similarities of three things, e.g., a book, a teacher, and a newspaper.

The Twelfth Year

At this level the testee must give satisfactory definitions of fourteen words on the forty-five-word Stanford-Binet list. Reasoning facility is tested by being further confronted with verbal absurdities in statements still more subtle than those used at previous levels; by skill in perceiving in a picture an element from which a logical inference can be made; by the successful repetition of five digits in the reverse order of that in which they were pronounced by the

examiner; by ability to give the meanings of such abstract words as "charity," "defend," etc.; and by shrewdness in supplying certain omitted connecting words in key sentences.

We have not attempted, obviously, to mention all the tests at any level; our purpose has been to select some of those that definitely seek to determine the ability a child has at each age to use his mind in thinking and reasoning processes. Note that manipulation of verbal meanings and symbols is not called for until the child has passed beyond the primary grades, the first Stanford Revision problems calculated to measure this ability coming in at the eight-year level. Thereafter, facility in this function is generally recognized by all psychologists as being a good index of intelligence and of ability to reason abstractly.

MUCH MENTAL FUMBLING IN REASONING OF CHILDREN

The method of trial and error, to which we have referred previously (see Chapter 13), is by no means limited to manipulative or mechanical problems and situations. It is used constantly by children in their reasoning. To the Stanford-Binet question at the eight-year level, for example, "An engineer said that the more cars he had on his train, the faster he could go: what's foolish about that?" the following random explanations were suggested by a child who failed to think out the real reason, "I don't see how it could have. I think it would have made it heavier, or else it was a fast engine, or maybe the cars pulled it." To the ten-year-level question, "Give two reasons why most people would rather have an automobile than a bicycle," the following random response was made, "An automobile can ride in the gutters and a bicycle can't, a bicycle a lot of people can't stay on, but an automobile they could." The answers quoted above to both these questions are unsatisfactory and are so rated. They indicate well the mental fumbling of child reasoners. Contrast with these rejoinders the following, made by children of the same age, in each case, as the children who failed: (Engineer and train) "Going uphill, he couldn't; but if he was going downhill he could"; (Automobile vs. bicycle) "Automobile is easier to ride, and doesn't tire you out."

In everyday life situations, as well as in test situations, children exemplify constantly this mental trial and error in their search for explanations and solutions. The following situation in which a seven-year-old boy, seeing for the first time a cow with a bell

dangling from her neck, was curious to elicit the reason for the bell, illustrates this mental fumbling at the seven-year level. An uncle, whom the boy was visiting, was the interlocutor in this dialogue:

Harvey: "What's that—a bell?"
Uncle: "Yes, a cowbell."
Harvey: "What's she wearing it for?"
Uncle: "What do you think, Harvey?"
Harvey: "Maybe it's so the flies will be scared away and won't bite her."
Uncle: "Think so?"
Harvey: "The others haven't got any bell, though. Just this one."
Uncle: "One bell's enough for them all."
Harvey: "Perhaps it's so the others won't get lost; maybe they're her babies."
Uncle: "No, they're not. Those cows aren't even related."
Harvey: "Does she wear it all the time?'
Uncle: "No, only when she's out in the pasture."
Harvey: "Do you think she likes it, a pretty sound?"
Uncle: "Maybe so."
Harvey: "Is it to tell you when she wants to be milked?"
Uncle: "It's to tell me something, all right, Harvey, but not *that*!"
Harvey: "She's tired, and wants to go in the barn and lay down?"
Uncle: "Hardly."
Harvey: "When she's away in the bushes, maybe you couldn't find her?"
Uncle: "Right, Harvey! A cowbell's a handy thing for locating a cow."

Mental trial and error is by no means, of course, limited to the random thinking of children; it is a common procedure of adults also in problematic situations for which the solution is not obvious. Traveling through northern New England in early spring, an automobilist observed frequent stretches of temporary fences erected at intervals along the fields and highway. Intrigued, he resorted to mental trial and error in search of a plausible reason for the five- to ten-rod-long stretches of uniformly red-brown, close-picketed fences. His first hypothesis was that the fences were to keep animals from wandering off the farms into the highway; the fact that the strips were discontinuous, however, seemed to warrant the discarding of such an explanation. The theory that they were for billboard advertisements to be posted later was likewise rejected be-

cause the strip were too long and they hugged the ground too low. So with other explanations that suggested themselves to the traveler: boundary markers, preventives of soil erosion, "blazed" highways leading to some particular city, etc. Not satisfied with any of his hypotheses, the gentleman finally drew up and asked a farmer who was tilling his field, and was rewarded with the appropriate explanation that the fences were to prevent the drifting of snow in winter over open sections of the highway. Except for the fact that the tourist's problem was of a somewhat different order from that of seven-year-old Harvey, the two situations were identical, and the two mental processes followed precisely the same pattern.

WHEN DOES REASONING START?

It used to be commonly believed—and some people still hold to the opinion—that young children cannot reason. The age of reasoning was supposed to dawn with the coming of the "age of understanding," whenever that might be! As a matter of fact, there is no such delay in the genesis of reasoning powers; there is no line of demarcation at any time during the life history of the individual, on the one side of which reasoning is unawakened, and on the other side of which it flourishes. The ability to marshal ideas and to make conclusions and inferences and to arrive at solutions to problems is present in some degree from the very earliest months. True, a six-month-old baby is not concerned over why cows wear cowbells or why snow fences are erected along highways; neither can he be made to think out what is missing in mutilated pictures, nor to marshal his confused mental processes sufficiently to distinguish verbally between a ball and an orange. He can, however, even at that tender age, infer that somebody is approaching when there is a creak on the stair outside, and that certain preparatory activities mean that he will shortly be made comfortable bodily, gastronomically, or kinesthetically. Reasoning, in other words, is not an attribute of maturity; it is an attribute of any intelligent nervous system that has been modified by sensory and perceptual experience, out of which some sort of elementary background for cerebration has been provided.

ONE ESSENTIAL CONDITION IN ALL THINKING

Nobody ever thinks of his own accord, unless he has a problem that demands a solution. The problem must be within his range of

comprehension; it must not be "over his head," in the sense that its proper solution calls for ideational backgrounds of experience or understanding that he does not have; it must appeal to him as sensible, worth battling with, and, if possible, it must be interesting in itself. At the adult level, examples of self-imposed problems that are intriguing might be the solution of the daily crossword puzzle, reading up about cormorants or Papuans, arguing with a neighbor about some question that agitates the international scene, all depending, of course, upon the particular slant, background, degree of intelligence, etc., that the individual may have.

At the child level, the problems attacked spontaneously are naturally those that bear immediate and personal reference to the individual. They may include such difficulties as teaching a dog to "play dead," learning to balance oneself on a fence or on a bicycle, making a doll's bonnet, repairing a punctured tire, laying out the bases for a new ball field, "getting even" with a mate that has played a practical joke upon one, earning money for a camera, and the like. All these goals are attractive, achievable, and personal. To reach them, children will ordinarily be willing to summon all their resources to their aid.

Problem situations that lack this element of immediate and personal appeal, however, have an occasion to be met and reacted to adequately by children, particularly in connection with their schoolwork. Despite yeoman teacher efforts to throw an intriguing aura of interest around many learning tasks, there remain many others of a problematic nature that children must attack without any particular consciousness of suspense or interest, and without awareness of any appreciable personal reference being involved in them. This is notably true in grades beyond the primary, as the educational content branches away from the immediate, and comes to embrace distant or subtle ideational materials and problems. Several fortunate factors operate to induce young learners to pay sustained attention to the solution of these impersonal and remote tasks, and to employ good thinking and reasoning in the process.

First, there is the universal desire among children to do as well in the common tasks as their neighbors at adjacent desks. The urge to project his own personality and repute by doing the expected or the approved thing is strong in the young learner, and the presence of others, engaged likewise in mental work that may not be inherently tasteful, is a powerful stimulus for most normal children. Second, there is an almost universal drive, especially among

primary-age children, to please the teacher and win her approval and favor. This motivating force holds many a first-grader, and many a second- and third-grader, to thought and reasoning problems that appeal only remotely to personal ambition or need. Thus, a child will toil through the problem of recopying his arithmetic paper, avoiding smudges and erasures, in order to win the coveted approval of his teacher; or he will search his house and enlist his family to help him, in order to find a special kind of box, or cloth, or cardboard, or trinket, for the grade project in hand, largely for the same reason. It is flattering to be approved—if one is six or seven—by his teacher. Third, children are willing to work at problems lacking in inherent interest because of some derived or secondary interest. For example, they often devote their best efforts to learning situations in order to achieve a place on the honor roll, or to win a coveted grade, or to get the prize or reward offered by a parent who is willing to pay in hard coin for concrete evidence of the growing intellectual prowess of his child.

Finally, a nascent intellectual life begins to emerge in the young learner as he proceeds upward through the elementary school. At first, the evidence is only slight and erratic; by the time he reaches the upper grades, however, the evidence is strong and consistent—at least in most children of average intelligence or better. With ever-broadening backgrounds of experience and achievement, older children come shortly to find actual enjoyment in using their minds constructively and creatively. Intellectual problems may now be assayed purely for the pleasure of mental exercise and expenditure. True, there is usually present also the desire to be approved by one's mates; there may also be still a wish to please and to satisfy one's teachers; and there may be derived motives that urge one forward. Notwithstanding, children who have reached the age of ten or eleven, and who have not been discouraged or embittered by poor methods of teaching and an unwholesome course of study, very commonly begin to experience a real satisfaction in pitting their keen young minds against all sorts of problems, regardless of whether they are in themselves attractive. Reasoning for reasoning's sake becomes a goal of the mental life; it will reach its zenith, so far as formal schooling is concerned, when, later on in high school, and subsequently in college, young intellectuals find tremendous appeal in debating every conceivable kind of moot question, and in less formal arguing among themselves on every topic.

LEARNING TO SOLVE ONE'S OWN PROBLEMS

Skill in using one's mind thoughtfully is an achievement that grows with experience and practice. Many times parents of young children make the unfortunate mistake of doing all the thinking for them instead of training and encouraging them to think for themselves. Is it a question of where to keep one's favorite doll? Mother directs that it be kept in the middle drawer and proceeds to make a place for it there. Is it a question of what to furnish for the grade party? Mother decides that cookies will be best and proceeds to make or to buy them. If members of the family trip over an array of gadgets and small articles Junior has left in the hall when he put his bicycle there for the night, mother obligingly picks them up and puts them away, so that life in the house will be safer for all concerned.

Later on, as children reach school age and can go about by themselves, they continue to be handicapped in doing their own thinking by paternalistic parents who, in their misguided efforts to make the pathway of their offspring easy and attractive, become their mentors, apologists, and slaves. Mary is to have a new dress; that has been approved; but Mary does not help make the selection —mother does it alone. Mary is too young, or she is too flighty, or she doesn't have good taste, or she shouldn't take the time to go about in the stores with her mother. Or if she does accompany her, her wishes and opinions are ignored. Only older and wiser heads can be expected to make such momentous decisions as are involved in selecting a new dress! Arthur is in the bad graces of the fifth-grade teacher because he never seems to have his papers in on time. Arthur's mother attacks the problem by calling the teacher on the phone, or visiting her after supper, to explain that Arthur's health is precarious, or that he is a little slow in arithmetic, or that he has to run errands for Aunt Nell, and that he is tired out when he gets to school; or perhaps, taking another tack, she scores the kind of problems he is assigned to do, or blames the teacher for her lack of sympathy and understanding, or perhaps criticizes Arthur's father for being himself so poor at figures! Thus are Arthur's problems met and his obvious failings parried by his mother-apologist. Propped up by such maternal buttressing, Arthur, of course, grows not in mathematical grace but only in evasion and further negligence.

The preschool period is not too soon for parents to start their children on the road to self-help in the solution of some of their simple problems. There is no reason why younger children cannot learn to dress, to bathe, to care for their clothes, to keep their toys and playthings in their proper places, and their playroom and bedroom in some semblance of order. Beyond these routine tasks, five-year-olds can be of help in performing simple chores about the home and in so doing can learn to think appropriately to the situation. If grandmother is tired and needs to rest quietly for an hour, Billy and Sally can learn to conduct themselves as befits the problem. If there is company for dinner, they can pull up chairs and carry dishes as carefuly as their elders, if given the opportunity. If the baby is restive and fretful, they can amuse her, trundle her about, rock her carriage helpfully. If they have lost or misplaced jacket or cap or blouse, they can search for the lost article as well as their mother can.

If parents would assume that even young children have minds that are capable of elementary thinking and problem solving, and would be on the lookout to provide them with opportunity for using them in this way, they would be giving them valuable training at a time when it counts heavily. Unfortunately, not a few parents dislike having their children "messing around" the kitchen, when cooking is going on, for example, and hence fail to supply them with concrete training in simple thought and reasoning processes. If, as often happens, this attitude on the part of parents is maintained up through childhood and the 'teens, it will greatly impede the development of these processes. "I don't want you around the kitchen," said one mother to her thirteen-year-old daughter, who was eager to learn to cook. "You'll have cooking enough to do later on when you grow up and have a home of your own." The girl may well have a kitchen of her own later on, but she will hardly have grown up in the ability to meet its problems and challenges when they come.

Teachers also offend occasionally in this same regard. They are omnipresent, sometimes oppressively so, to offer guidance and leads and suggestions, when their pupils really ought to find solutions for themselves. Impatient with children's immature mental bungling; able to do in a few seconds what their pupils will require minutes or even hours to figure out; resourceful and skilled themselves in the use of books, references, and other source materials; and overcognizant of children's limitations in finding relevant data

by themselves—for these and other reasons, teachers frequently, if unintentionally, stifle the nascent urge for independent study and reasoning in young minds and become for them eyes and ears and hands and brains. Admittedly, self-help in learning to think and to reason requires time—much time; and time is the one thing that teachers feel they must conserve, thanks to pressure from supervisors and superintendents and course-of-study makers! They forget, or train themselves to ignore, the fact that learning at its best in the young has to be a leisurely process of self-investment and independent thinking. By hurrying their pupils through, teachers are apt to defeat their own ends and make children into mental slaves or imitators rather than mental conquerors and originators.

THE DEVELOPMENT OF GENERALIZATION

Thinking in the preschool years is largely intuitive, specific, and non-analytical. With the coming of school age, however, children achieve increasingly the ability to examine their experiences somewhat critically, and hence to think in more adequate terms. During their earlier years, when sensory experience is being achieved at a tremendous rate, they are content to store up impressions without a great deal of analysis and critical thinking. As new individual experiences multiply, however, and as new aspects of old ones are discovered, there develops a tendency to rethink earlier ideas and concepts and to bring them more into line with accumulating experience. The child becomes thus an analyst and a generalizer, sorting and classifying his world in terms of common elements.

Take, for example, the idea "grandmother" which the eleven-year-old has, in contrast to the same concept in the mind of a four-year-old. For the latter, "gammie" or "nana" has a very personal reference, being an identification tag for the gray-haired woman who tells one stories, smiles and clucks at one, and often takes one by the hand and leads one along the street. For the former—the eleven-year-old—the conception of "grammie" or "gram" or "gran'ma" has come to mean, besides earlier connotations, "my father's mother," or "my mother's mother," and beyond that, the mother of the parents of any other boy or girl. In this evolution of the concept of a grandparent there has come about generalization, so that the personal reference is no longer essential. The enrichment that comes to the mental life of a child as he grows able to think in more remote and generalized terms is incalculable; he is

freed from the limiting, egocentric aspects of experience and able to fit all its parts together into workable and universal concepts. Rational thinking, so long as intuition and egocentrism prevail in the mental life of the child, is quite impossible or at best is possible only within a very restricted range. Rational thinking presupposes clear concepts, a generalized experience, and the willingness to assay bold assumptions.

HOW DOES THE CHILD ADJUST TO UNSOLVED OR UNSOLVABLE PROBLEMS?

1. By New or Fresh Attack

The intelligent way to adjust to frustration, whether the thwarted individual be child or adult, is to try again. To a limited degree only, and then principally in situations having strong personal appeal to their interests or needs, can children be expected to make fresh attack. They tend easily to be discouraged; moreover, there are so many other things that intrigue them that they do not find it very difficult to drop a baffling project and to devote their energies to others that promise more satisfying outcomes. If, however, the problem confronting them is one of mastery of some strongly desired skill or some achievement that will satisfy their egos in the competitive world of children's play, they may expend quite as great effort, and sustain in the process quite as much frustration and bafflement without giving up, as do people far older than themselves.

Ernest, living in the country and in a region where there was no electrification, became greatly intrigued with the possibilities of an electric light for his bedroom on the second floor of the farmhouse. Returning home often in the evening after dark, he found it irksome to fumble for matches and light the kerosene lamp before going upstairs to bed. For some time he saved every possible penny, and at length had enough to buy some covered doorbell wire, a dry cell, a small procelain base, a switch, and a small electric bulb to screw into his base. After he had gotten all the items assembled, he proceeded to install the light on the wall just above the headboard of his bed. The switch he placed just inside the outer door of the house, so that when he came in at night he could close it, and find his room lighted when he arrived upstairs. The system worked beautifully—for three or four nights; but then as the dry cell began to fail, Ernest's light became dimmer and dimmer, showing soon no

more than a faint brightness that could not penetrate the darkness a foot away from the bed. To purchase dry cells enough to run his system would be ruinous to his finances. One day, he discovered that a certain small manufacturer in the neighborhood discarded frequently dry cells after their strength had been reduced to a point insufficient for his purpose. Ernest appropriated a number of them, hooked them up in series, and was overjoyed at the bright light that flashed out into his room. Unfortunately, it faded almost immediately, and left the room in complete darkness before he could undress and get into bed. Baffled, yet eager to win out, Ernest talked over the situation with a neighbor, who suggested that with some glass jars and a little sal-ammoniac, run-down dry cells could be converted into wet batteries that would be far more satisfactory. Procuring half a dozen more discarded cells, Ernest, with the aid and advice of his mentor, removed the pasteboard outer containers, perforated the zinc walls with holes made by a ten-penny nail, and dissolved his sal-ammoniac in water. When he came to look for glass jars to contain the cells, he was non-plussed. Too small ones would not admit them; too large ones would waste the precious chemical. At length, one day, while reading in a junior scientific magazine, he was elated to find that ordinary quart bottles could be easily cut down to make cylindrical jars by tying around them a piece of twine soaked in kerosene, touching a match to the string and allowing the heat of the flame to work its way around the bottle, and then plunging the bottle, neck-down, into a pail of cold water. Everything worked out as claimed, and before many days had passed Ernest had an electric light in his bedroom that did not dim out in any reasonable time. Latterly, he wired a second bulb beside the switch at the outer door, so that he could see his way into the house and up the stairs to his room, which was properly lighted when he arrived. A second switch by his bedside opened the circuit and turned off both lights. In the morning, when he got up, he would close the bedroom switch and open the downstairs one as soon as he reached the first floor.

2. *By Compensation*

Despite their best efforts, children experience a good deal of frustration. Anxious to masquerade as adults in an adult world, they are yet restrained by their immaturity and their physical inferiority. Unable to solve their problems, they may achieve some compensatory satisfaction in derived or imitative forms of activity, and so find contentment and serenity. For the five-year-old, such a universal form of activity as "playing house" meets this need excellently. In this dramatic situation, a child can be father and

mother in one; he can rule his "family" with an iron hand; he can vicariously experience most of the satisfactions of the envied adults whom he sees around him and whom he must constantly keep a weather eye on. Even older, school-age children derive much compensatory pleasure from playing house or school, each one sparring to be the "mother" or the "father" or the "teacher," as often and as long as the situation will bear it. To the same end, little children like to "help" their mothers "cook" and "bake" and "wash" and "sweep," etc. In carrying on these delectable imitative tasks, they achieve much compensatory satisfaction which goes a long way to make them feel grown-up and important.

Children derive also an enormous amount of compensatory satisfaction and delight from adventurous play activities. A child can be a bold savage warrior, a military commander or strategist, a swashbuckling buccaneer, or he can identify himself with any other successful or mighty personality. Children can "hunt" tigers and bears and other wild animals, and come home dragging their prey behind them. They can carry on "warfare" with the "enemy," using popguns or wooden guns, or "swords," or bows and arrows, or snowballs for weapons, the course of battle being recorded in shouts and yells quite as ferocious as those of savage tribesmen, which, indeed, they momentarily are. They can bring their elders' hearts into their mouths by climbing to dizzy heights in trees, on fences, on bridges and roofs. For extremely happy moments, they can thus feel superior, more agile or bold than adults, liberated from shackles that hold them chained to their own physical limitations. In the exciting and extremely dramatic tales they read and the adventures of heroes and heroines in the comics they follow devotedly, children also find an agreeable form of compensatory identification.

Most of these substitutions of compensating activity for frustrated grown-upness and self-regulation are innocent and harmless enough, and the great mass of children find in them a temporary release from dependence and inferiority. Unfortunately, a few children, either not caring for these imaginative types of compensation, or craving more active and realistic excitement, escape from their failures and their buffetings and their conflicts and their sensed inferiorities by induling in antisocial forms of conduct. Waywardness and delinqency for such individuals are welcomed as offering all the thrill and success that have been denied them in school, or at home, or on the playfield. The subletly of this mech-

anism is, of course, beyond their powers of penetration, much as it is in the cases of many deluded adult compensators who do not or cannot reason out their introversional escapes from frustration.

3. By Substitution

A very promising technique in handling frustrated children is provided by the mechanism of substitution. Suppose four-year-old Ann, scolded for breaking the buds off the roses, is left eloquently alone to remind her dramatically of the disfavor into which she has fallen, and to suggest how unpopular such action is. The stage is set for almost anything. Ann may sulk; or she may seek in ingratiating ways to assure herself that she is still loved; or she may in a moment of passion overturn the goldfish bowl or kick over the birdbath. Now, suppose instead of leaving the child to her own vengeful avenues of emotional reaction, the mother had explained to her how lovely roses are when they burst into bloom and had then proposed that they fill the watering can and water each rose-bush, or that they together rake some fine dirt about the roots of the bushes, or perhaps that they set a stick in the ground beside a particularly tall bush and tie it up so that the wind will not blow it about and damage the buds. By any or all of these means, Ann's destructive impulse would be turned into constructive substitute channels. In this way the child may be guided in doing some elementary thinking about gardening and the needs of plants, and her frustration will be happily forgotten in the new point of view.

When a child is thwarted, as we have implied above—and as is likely also to be true in the case of frustrated adults—there is usually a strongly emotional reaction. It is imperative that some adequate substitute activity be set up before the emotion has a chance to express itself destructively. The substitute activity ought to be of such a type, too, as to provide plenty of opportunity for physical expenditure, so that the emotional "steam" generated by the conflict and thwarting will have a chance to blow itself off harmlessly. The new situation ought also to stimulate new thinking in the general area of the original frustration. A delicate problem is presented to the parent in the choice of the substitute activity to insure that it shall not "rub in" to the child's cerebration the enormity of his misbehavior and point a moral too obviously. Neither the "You've-been-very-naughty!" tack, nor the "If-you-ever-do-that-again!" one, is wise, since both keep the child's emotions ruffled and fail to provide him with a new basis for constructive thinking.

4. By Rationalization

Here is a neat little mechanism that deceives many a frustrated individual and provides him with what appears, if one does not look too closely at it, to be a thoughtful and reasoned way out. One rationalizes when he resolves a problem in his own favor. It is easy to so marshal the arguments in a bit of personal "reasoning" that one is left completely free of blame for his errors, and may even "see" only the highest and most unselfish motives at work. While rationalizing is by no means restricted to children, it is a very common mechanism in early and middle childhood.

Fred, age 9 through 11, had an uncle who arrived late each Saturday night from his place of business, with a money-bag bulging with unsorted bills and heavy with coins. On Sunday afternoons, Fred was allowed to empty out the contents of the bag on the table and count the money for his uncle. He learned to sort the bills and put them in order from the "ones" to the "twenties," and then tie them up in a neat roll so that his uncle could bank them easily next day. Fred felt a keen sense of his own importance in being thus privileged to handle his uncle's money, which rarely amounted to less than some three hundred dollars. He was methodical and always accurate. But every Sunday after he had finished counting, Fred extracted from the pile secretly a dime and placed it in his pocket. When, years later, he confessed his weekly purloining, he affirmed that he had reasoned in this way: "There's a lot of money that has to be counted; uncle is tired and needs my help. It certainly is worth a dime to count it all and put it in order. He would want me to have at least that much for my trouble. I really should take a quarter, but I'll be honest and fair and take only a dime."

This illustration of rationalizing is an interesting one. Fred had little spending money of his own. He could not buy some of the small things other boys could buy. The money-bag situation solved his difficulty, at least to a degree. By paying himself for his time and efforts expended in counting its contents each week, he always had a sure source of a little spending money. By "reasoning" that his services were worth the amount extracted each time, he escaped any silent inner condemnation of dishonesty; indeed, he even felt himself to be helpful to his uncle and modest in the small size of the "fee" he deemed proper to withhold for his services. Here is "thinking" with all the cards stacked at the outset in one's favor. The conscience of many a child—and adult—is salved in this deceptive manner by the lenitive of rationalized conduct.

There are many forms of rationalization, variously termed by psychologists projection, identification, "sour grapes," "Pollyanna," "sweet lemon," etc. All these mechanisms are alike in that they provide a gracious escape from responsibility for failures and misdemeanors and leave a person serene in the belief that he is not personally to blame for them. The fifth-grade child blames the teacher for his low grade in arithmetic when he takes his report card home—and his parents may be inclined to support him in his charge. If he is overlooked when favors are being granted to other children; if he is not chosen to be captain of the team; if he fails to be included on the honor roll—it is because others are too obtuse to discern his worth, rather than because of any social or scholastic weakness in himself. If, as in the fable of the fox and the grapes, he cannot attain a goal he desires, he "reasons" that it was not worth having, anyway, and he may even go so far as to reach the conclusion that, had he attained it, it would have been unfortunate in the long run, and very probably might have meant his eventual undoing. In all these situations, the quality of "thinking" and "reasoning" done is of a low order; in fact, as we have pointed out above, it is not thinking at all. The only mental cleverness involved is that required to think up spurious explanations or arguments and to close one's mind to the entrance of logical and relevant ones.

PERTINENT QUESTIONS FOR DISCUSSION

1. Explain the distinction between "thinking" and thinking.
2. Cite additional examples of the egocentricity of children at the primary level. Do you find evidences of this same tendency in upper-grade children?
3. Suggest other examples known to you of young children's limited ability to perceive relationships and hence to think logically.
4. Give samples of children's reasoning that illustrate their limited ability to connect events with their logical causes.
5. Have you met any good examples of wish-thinking in your children? Explain the mechanism.
6. Do you find children tending to cling to their originally pronounced snap judgments and opinions, without any feeling of need to verify or to rethink them?
7. Secure from the instructor a copy of the *Record Booklet* (Form L) for the revised Stanford Binet Scale, and study

the structure of the items. If possible, supplement this by doing some reading in Terman and Merrill's guidebook. (See Reference 4.)

8. Try your hand at thinking up several original items to test the ability of the children in your grade to think. Try them out, rejecting those obviously too hard and too easy, and adopting those that 75 per cent or more of the children can handle satisfactorily.
9. Give instances of mental fumbling exhibited by children in their reasoning about a problem.
10. If you get an opportunity, observe the behavior of a pre-nursery school child and note evidences of his reasoning or thinking.
11. Cite examples of the things done by primary children, (1) to please their teacher; (2) to do as well as the other children about them; and (3) because of some derived or secondary interest.
12. Do you observe in children in the fifth and sixth grades the genesis of pleasurableness in using their minds in the solution of problems that are not of themselves appealing or personal in reference?
13. Do you know (1) any parents who delay the growth of juvenile thinking by doing all the thinking for their children? (2) Any parents who are encouraging and training their children definitely to think for themselves?
14. Give examples to indicate that as children pass upward through the elementary grades they gain demonstrably in their ability to generalize from their experience.
15. Can you cite examples of children who, thwarted in their early efforts to solve a problem, make fresh attack again and again until they finally succeed.
16. Present examples of adjustment by compensation; by substitution; by rationalizing. Select some of your illustrations from the child level; some from the adult level.

READING COURSE TO PARALLEL THE CHAPTER

1. CURTI, M. W. *Child psychology.* 2nd ed.; New York: Longmans, Green, 1938. Chapters 12, 13.
2. JERSILD, A. T. *Child psychology.* 3rd. ed.; New York: Prentice-Hall, 1947. Chapter 11.
3. NAGGE, J. W. *Psychology of the child.* New York: Ronald, 1942. Pp. 485–90.
4. TERMAN, L. M., and MERRILL, M. A. *Measuring intelligence.* Boston: Houghton Mifflin, 1937. General reference.

CHAPTER 15

GUIDANCE

Some Children To Identify in Your Room

A child who . . .

(1) appears to have no interests that can be made use of in guidance;
(2) seems to be in need of mothering by the teacher;
(3) seems to regard the teacher as a person to resist;
(4) desires always to appease the teacher;
(5) is unhappy; one who is happy;
(6) has responded well to guidance for security and status;
(7) is at the present time subject of a continuing case study by teachers;
(8) is too immature to begin a reading program;
(9) is having diagnostic guidance for reading needs;
(10) is responding well to diagnostic guidance in arithmetic;
(11) has more than the usual number of handwriting errors in form;
(12) has a below-class average in a specific subject, e.g., history;
(13) has a higher-than-class average in a subject;
(14) needs counseling with regard to his future schooling;
(15) needs and is receiving health guidance of a specific nature;
(16) has been or is being treated at a child-guidance clinic;
(17) has an intelligence test score too low for satisfactory schoolwork.

GENERAL ORIENTATION

In a simpler age than the present, the task of the schools was considerably less onerous than it is today. For a civilization that was more static, less subject to violent change, and based upon a stable and relatively simple economy, late nineteenth century schools were on the whole reasonably adequate. The present was not strikingly different from yesterday; and tomorrow could be confidently expected to be tolerably a counterpart of today. While the great social transformations that were to be wrought by the machine age were already visible on the horizon, they had not succeeded in altering greatly the pattern of education, which continued, with the addition of a little science to the curriculum, to follow the lines of tradition.

But the protest against the conventional and the traditional in the schools was making itself heard on many sides. After the turn of the century, this unrest became more tangible. To meet the demands of an industrial age, the time-honored three R's were proving inadequate. The giant of trade and expanding commerce was rearing his head. Labor, capital, management were establishing their lines for the coming struggle. Technological developments were demanding more and more training in various fields of pure and applied science. Business was scouting the cloistered learning of the schools and insisting upon a new type of practical, utilitarian curriculum. To meet these many demands, the schools were forced to revamp themselves and their offerings, almost from the ground up. The traditional college-preparatory course in the high schools began to lose ground, and in its place there grew up curricula adapted to a new age in which trade and industry and technology made rival bids with the conventional academic for the allegiance of the generations of youth. Dissatisfied with the inertia of the schoolmen, society established trade schools, vocational schools, business schools, technical schools.

Paralleling and contributing to the necessity for a new emphasis in education, this nation was confronted with a mushrooming out of the originally few vocations that had heretofore been available to each generation of youth, as it left the schools, into a bewildering and labyrinthine maze of vocations and of opportunities for establishment in the world of work. The United States Census lists more than 20,000 separate kinds of occupations in our country. To this amazing degree have the original half-dozen or so occupations of colonial days—the ministry, teaching, farming, fishing, cobbling, and small trading—been swollen by the expansion of manufacturing, agriculture, mining, distribution, transportation, communication, and, most recently, by the tremendously stepped up demands of technology, aerodynamics, chemistry, electronics, and applied science produced by the last war.

To find his way intelligently into this vocational labyrinth, and, of no less importance, to adjust himself satisfactorily to all the bewildering physical, social, civic, and other phases of living in the modern world, the young person must be fortified with a deal of preparation and be aided by consistent and wise guidance. The elementary-school level is none too early to provide for such initiation of the child into the fine art of living and working in the new age.

TWO PURPOSES OF GUIDANCE

1. For Diagnosis and Appraisal

The world of work unfortunately numbers too many "square pegs in round holes." Altogether too many employed people spend their days and their years in jobs that either do not appeal to them or that require other primary qualifications than theirs for success and happiness. In the world of personal adjustment and social relationships, also, too many people are unhappy, uncomfortable, over their depth, uncooperative, bigoted, working at cross purposes. If there was any guarantee that every person born into the world would be able through his own efforts and common sense to adjust himself happily and hygienically to his job and to those other personalities with whom he comes in contact, there would be no need of preliminary or preparatory diagnosis and appraisal. But because this is not the case, guidance becomes essential to everybody.

One way to determine a person's fitness or adequacy for the tasks that confront him is to stumble ahead by blind trial and error in the hope that he may find out his strengths and his weaknesses and correct his course accordingly. Another, and a much more economical and promising way, is for him to have the benefit of intelligent and discerning assistance in sizing up his potentialities and his liabilities, to the end that he may conduct himself fittingly in every area of experience. As we shall see a bit later in the chapter, there are available many standardized aids for teachers of young children in this work of diagnosis and appraisal.

2. For Adjustment and Growth

Diagnosis and appraisal is, of course, but the first step in the whole process of guidance. When it has been established, for example, that a specific child—Peter—is failing to do passing work in the fourth grade due to a reading deficiency that has fastened itself upon him, only the preliminary task of guidance is ended, the basal task is just begun. The basal task is for the educational forces to be so applied upon Peter that he will be aided to overcome his handicap and encouraged to make up for lost time and lost ground. Lacking this help and encouragement, Peter may easily drop farther and farther behind his age-grade group and pile up much inner turmoil and conflict that may well goad him to delinquent or predelinquent adventure to compensate for his scholastic thwarting.

Without a discriminating and workable guidance program in the earliest grades, there is grave likelihood that those children particularly who tend to be slower than the average in learning situations will experience failure and frustration and will develop a host of faulty reading and study habits as well as personality liabilities. It would be extremely interesting if we could know to what degree school failure and frustration, with their attendant smoldering attitudes of resentment and rebellion, may be responsible for the antisocial conduct of these same children when they reach pubescence. In a personal letter to the author from the Director of Elementary Grades in a certain Midwest city, appears this highly significant statement:

The head of our Welfare Department contends that a large percent of boys and girls who are called to his attention because of delinquency are children who have had serious trouble with reading and arithmetic in particular, and with school work in general. When they finally open up and talk about themselves, they always show resentment because of school difficulties.

Certainly at no round in the educational ladder is the need for guidance, for adjustment and all-around growth more indicated than it is in the elementary grades. Under an adequate system of guidance, such as we have indicated to be desirable, there should be decidedly less failure in the first grade than is the case at the present time. Reliable statistics, collected widely over the country in recent years, show that approximately 20 per cent of children—i.e., one out of every five enrolled—fail in this grade. Proper attention to individual children at this level is extremely important. First graders represent a completely unselected group, and therefore a completely heterogeneous one. They include, in addition to the immature and the mature, children with kindergarten background and without; the bright, the average, and the dull; those from rich, full cultures and those from ordinary and meager cultures; children with all degrees of socialization and non-socialization; the husky and the frail; the well-nourished and the malnourished; the aggressive and the withdrawing. No conceivable curriculum could possibly succeed with all of them. Failure and frustration that result at the first-grade level from premature encounters with formal reading and number are quite as devastating to the personalities of primary children as they are to older children who fail in any other school area.

OBSERVATION AS A METHOD OF GUIDANCE

1. *In the Area of a Child's Interests*

The method of observation, as a scientific technique, has plenty of weaknesses, which need not be examined here. Despite its limitations and inaccuracies, however, the observational method possesses great significance for any teacher in the guidance of her pupils. For some twenty-five or more hours every week, she works and plans with them momentarily. In her close and interested association with them she has large opportunity to study them and to observe their varying abilities and disabilities, as well as their personality and their emotional and social traits, and while she is not a psychiatrist, nor yet a psychologist, she sometimes excels these specialists in her constant study of practical child psychology, and in the amount of concrete experience she has had in handling and training children. What she may lack in formal, scientific preparation, she makes up for abundantly in intimate association with and observation of children.

With the diverse personalities represented in any primary classroom, and indeed in classrooms at subsequent levels, and with the varying degrees of adjustment and maladjustment they present, the role of the teacher becomes quite as much that of a discriminating and practical child psychologist or mental hygiene therapist as it is that of the teacher of lessons. It is not extravagant to say that the principal task of the primary teacher, at least, ought to be to study her pupils as individuals as a preliminary to understanding their points of weakness and strength, their needs and their capabilities, their interests and their general maturation and readiness for the graded tasks of the school.

The teacher is in an extremely strategic position, for example, to observe and to study the interests of individual children. Guidance of an intelligent sort, if it is to diagnose assets and liabilities and to stimulate children to develop and grow accordingly, must be strongly concerned with an analysis and evaluation of their interests. While there are available several interest questionnaires and inventories by which a child's interests may be explored somewhat objectively, the chances are excellent that the daily living together with a group of children will provide an unexcelled means of discovering what their individual interests are, and of calculating the degree to which these interests are being or may be capitalized both educationally and socially.

From the very earliest grades up, these interests are obtruding themselves into the schoolroom situation, and the discerning teacher takes note of them. With one child, it may be painting or sketching that intrigues; with another, it may be reading, dramatics, or music; with another, carpentry, gadget making, mechanics; with another, sports or games or athletics; with another, handicrafts, camping, fishing, boating; with another, hiking, roughing it, woodcraft; with another, natural history, gardening, floriculture; with another, radio, aerodynamics, science; with another, moving pictures, bowling, dancing. Among the children making up any ordinary schoolroom will be found scores of interests and hobbies, most of which grip the imaginations of their possessors with some tenacity. Varying, of course, with the stage of development or the degree of maturation of a child, the things that fascinate him may and ought to provide the teacher with a considerable amount of information about him that should aid her greatly in a guidance program.

Teddy, 10 years of age and in fifth grade, was rather disappointing to his fourth grade teacher because he did not like arithmetic. Barely succeeding in being promoted to the fifth grade, Teddy brought along with him his frankly expressed dislike of arithmetic. One day in the early winter, after a particularly uncomfortable time with his school work, Teddy was observed by Miss Brown gazing for some time at a picture of a small sail boat which he had taken from his desk.

"Do you like boats, Teddy?" she asked.

"Oh, yes, Miss Brown!" he replied eagerly. "I was in one almost every day at camp last summer! I love boats! Wish I had one!"

Nothing more was said. But next morning when she came to school Miss Brown bore under her arm three back numbers of *Motor Boating,* which she placed casually on one side of her desk. Shortly afterward, in a lull in arithmetic class, Teddy spied the magazines. Forthwith he was by Miss Brown's desk. Out of the corner of her eye, the teacher had been waiting and watching.

"Miss Brown!" Teddy exclaimed. "May I—these magazines—are they yours? Could I——?"

"What magazines, Teddy?" countered Miss Brown in an offhand manner. "Oh, *those*? Why, yes; that is, no, they are not mine; I borrowed them from a friend. Would you like to take one of them home with you to read tonight? If you would, you may."

Teddy stroked the smooth cover lovingly. "Oh, *yes*!" he breathed.

Next morning there was new light in Teddy's eyes when he returned the magazine.

"Miss Brown," he said excitedly, "look *here!*" and he opened the magazine to a blueprint of a small 10-foot rowboat, with all the specifications for cutting out the boards and assembling them. "Look! It's a rowboat, a ten-footer! Tells how to build it, too! Do you suppose I could make one *myself?* Could I take this magazine again?"

Miss Brown demurred a bit. "Let me see it, Teddy," she said. Then, after studying it for a moment, she shook her head doubtfully. "I'm afraid you couldn't build it, could you? See, all those floor boards and side pieces and thwarts and all have to be measured and sawed out very carefully."

"I *know* it!" agreed Teddy. "I *know* I could do it! If I ask dad for the boards, can I have the magazine long enough to go by?"

"Of course, Teddy, if you want to try," said Miss Brown. "Why don't you, for your arithmetic lesson tomorrow, try cutting out patterns from brown paper, following the exact measurements given in the blueprint? *Maybe* you could do it; you could *try*, anyway."

That was the beginning of the end of Teddy's dislike for arithmetic. Within the brief space of a month, he was cutting circles about the rest of the children in the grade in his grasp of arithmetic problems, and when the semester was ended his grade in arithmetic was higher than it had been since first-grade number four years before.

It is out of such casual observation as this that a teacher often comes to recognize an absorbing interest in a child. Recognized, it becomes a powerful incentive for the discerning teacher in directing or redirecting the educational and often the social activity of the possessor. The undiscerning teacher fails completely, of course, to take advantage of such an obvious situation and to that degree at least fails in her proper task of guidance. The memory experience of most insightful teachers is filled to overflowing with examples of interests that, once observed in their individual children, they have made challenging and telling points of departure for much subsequent fruitful suggestion and guidance.

2. In the Area of the Child's Emotional Needs

Through observation of the emotional life and expression of a child, also, the discerning teacher is in a strategic position to guide him wisely and helpfully. Powerful, as we know, at every life stage, the emotions of children are notably strong and dynamic. Through observation of each individual in her room, a teacher

may come to understand something of the emotional gearing that drives them all, and, understanding it, she can do much to strengthen here, to redirect there, and to idle elsewhere. The circumstance that thirty or forty or more children, with all kinds of emotional adequacies and inadequacies, are thrown into intimate contact with a new adult when they come to school affords the teacher excellent opportunity to study the needs of each and to proceed accordingly.

Following the threefold classification suggested by Lloyd-Jones,[1] we may accept the fact that some children need, when they reach school, to be mothered because their natural mothers are indifferent, or are actually hostile to them. Emotionally starved in their associations with their parents, these children long for love and sympathy and even for a bit of babying on occasion. By ascribing to the teacher the role of teacher-mother, they see in her the embodiment of all their emotional desires, and seek satiety in being mothered and loved. Much will depend upon the insight of the teacher into the problems of such a child. If she endeavors to be objective and matter-of-fact, as she probably has been trained to be with all children, she will leave this emotional hunger unsatisfied. If she goes all out, on the other hand, for babying him, she will keep him infantile and may retard or misdirect the normal evolution of his love emotion. Some teachers err in the one direction; some in the other. few are, by wise training for the profession, or by an innate knack at handling children, or both, able to provide an optimum amount of mothering, without overdoing it. It is sometimes flattering to a teacher to feel that she is the very apple of the eye to a few of her children, and she may encourage their devotion unwholesomely. In extreme cases, and even in the upper grades and beyond, a teacher may go to ridiculous extremes to hold the affection of her pupils. Emotional guidance in such cases fails utterly, and children are left poorly prepared to lead normal affective lives.

Second in Lloyd-Jones's classification are those children who are in process of building up "emotional immunities" toward life, and who suppose that in the teacher they are faced with a powerful individual whom they must resist, and even fight if need be. The basis of this negative emotional attitude toward a teacher is in most, if not all, cases an unfortunate emotional situation at home.

[1] E. Lloyd-Jones, "The teacher's role in personal and social relations," *Understanding the child,* vol. 6, no. 3 (October, 1937).

Usually there is personality strife between the child and his mother, due to the fact that the latter tries to dominate and to stifle, or else rejects the child. Children who were unwanted, or for the care and training of whom the mother is temperamentally unsuited, tend easily to regard the teacher-parent as a new person to be resisted and battled unceasingly. Guidance of such children emotionally becomes extremely difficult for most teachers, for, being human after all, they resent their disparaging and cynical attitudes, and tend to react toward them with aggressiveness if not with animus. A very uncomfortable situation emerges when child and teacher clash emotionally.

Third in Dr. Lloyd-Jones's classification are those children who put the teacher in a "god-role." They learn that one gets along most easily through conformity, and that by appeasement and propitiation they can avoid all uncomfortable "guilt loads." Whatever demands a teacher may make are cheerfully and ingratiatingly followed through in order to live happily and without clash and conflict. Emotional guidance of these children, likewise, is difficult for the teacher, for it is flattering to her to be placed in a god-role, and her eyes are easily closed to the deeper and more constructive needs such children really have if they are to learn to adjust healthfully toward the teacher-adult, and subsequently toward all other adults.

To quote Dr. Lloyd-Jones in an illuminating paragraph:

> The average unsophisticated teacher does not understand the needs of the various children for whom each year she assumes a responsibility. The training of the average teacher fits her fairly well to teach writing or reading or spelling. There is little in her training, on the whole, however, that renders her understanding and wise in meeting the more subtle and basic needs which the children ask her to meet for them. She readily pictures herself as a teacher of reading, a teacher of arithmetic, and the like, and feels fairly self-assured in these roles. In so far as she responds to children as individuals it is apt to be on a thoroughly unprofessionalized and naïve basis. One child she yearns toward unconsciously because the child is physically attractive to her. Toward another child she feels revulsion, again unconsciously, because he is straggly-haired, dirty, sniffly-nosed, slow. Another child, beside being, perforce, a learner of geography and history and grammar, may possess his only personal meaning for the teacher because he is the son of an aggressive, busy-body, objectionable mother. Any one episode in which a child participates may be sufficient to cause an

unsophisticated teacher to cast that child irrevocably into one or another of the classifications to which she tends unconsciously to assign her children. Certainly one of the greatest needs we have in education is to recognize clearly that teachers are far more to children than ladlers of history, of arithmetic, and other school subjects. And this need can be met only as each teacher becomes more sensitive to the personal and social needs of the children, and more adept in relating herself to them so as best to serve their varying needs.

3. In the Area of a Child's Happiness

Probably every thoughtful person would subscribe to the thesis that childhood should be a time of happiness and contentment. The shadows of failure and disappointment and frustration may close all too soon about them when they become adult; as children, they merit happiness. Indeed, thanks to comfortable schools and competent teachers, to playgrounds and sports, and to the opportunities provided them for social experiences at their level, most children are happy in the main. They have their problems and their worries, obviously, and their uncomfortable hours; but that is life, and childhood is the proper time to learn that it is not all joy. If parents and schools and society in general can see to it that the chief accent for their children is upon happiness rather than unhappiness, we shall all be content.

There are, however, children who for one reason or another are not happy. Life for them is uncomfortable and perhaps frightening. They may be physically under par, and unable to participate joyfully in the activities of their mates; they may be hungry—perpetually and paralyzingly hungry; they may be browbeaten and mistreated at home by vicious or ignorant or depraved parents; they may feel desperately inferior and incompetent; they may be ridden with fears and apprehensions; they may be tired and worn prematurely from excessive work, or from inadequate rest, or from constant overstimulation at home and in social activities outside; they may be discouraged and baffled over their school rating and repute, worried about sick or indigent or discouraged parents. All in all, there are innumerable areas of child experience that may and do yield for some children the opposite of happiness and confidence and a serene forward look. Such individuals are to be found sprinkled among the other pupils in every schoolroom.

Through her intimate contacts and her daily living with such unhappy children, the teacher has good opportunity to identify

them, in the first instance; and, in the second, to help them find some measure of adjustment. Primary children, in particular, who are unhappy can usually be identified readily; they have not learned to dissemble, and in their gaunt faces and hopeless expressions can often be read their inner tragedies. Older children are more apt in covering up their troubles; they have developed, too, a nascent pride that drives them to conceal anything that might point derogatorily to their homes or parents. In the lives of unhappy children, regardless of age or grade, the school experience may come to represent the one bright spot. The schoolroom is like an oasis in the desert to them. Here for the first time, it may be, they find understanding, respect, stimulation, love. Here, too, they find cheerful surroundings—vases and pots of flowers, bright pictures and borders, intriguing materials, perhaps an aquarium or an herbarium, and maybe flower beds to be tended, pets to be cared for, food to be prepared and served. Here are fascinating books to be read, games to be played, projects to be carried out. And here, too, above all, hovering always in the general setting, is an adult teacher-parent who makes them feel at home, contented, secure, and who supplies them, *in loco parentis*, an agreeable substitute for that happiness they crave but are denied at home.

Guidance in this area is quite as important as in any other area of the school's influence. It is not the sort a teacher can be taught to supply, or can "read up on." Rather, it is a type of personality osmosis that seeps from the understanding adult guide into the receptive child hungering for it. In this sense, happiness-guidance is an art that good teachers will know almost intuitively how to practice. An indispensable condition of it is the happiness and serenity of the teacher herself. If she is fearful, embittered, insecure, she will patently fail in the role of guidance in this area. If she is merely teaching in order to get her salary check regularly, if she resents the encroachment of the years, if she is apprehensive about financial competence for her old age, if she is nervous and anxious, if she feels bitterly her loneliness and the cloisteredness of her life, she will be no fit guide to lead children who are themselves unhappy out into a sunny and satisfying valley of contentment.

4. In the Area of Security and Status

As we already know from earlier discussion (see Chapter 1), every child requires a feeling of security or status if he is to be well

adjusted. Many things operate to prevent the achievement of this essential condition of mental health in children, particularly in their schoolroom experience. Some of them are slow and plodding, and fall behind their more capable mates; some of them are unpopular because they possess exaggerated qualities or traits that other children resent; some of them bring from home to school timidities, fears, uncertainties, inferiorities; some of them are unloved, unwanted; some of them have been tyrannized over, or suppressed, or spoiled. Regardless of the nature of their difficulties, these children are insecure in the group; they fail to achieve satisfying status; they are woefully inadequate to meet the common situations with confidence and aggressiveness. Guidance becomes tremendously important for them if their personalities are to be salvaged and they are to achieve anything like sound mental health. Her long-time associations with them and her day-by-day observation of their limitations and needs should provide the teacher with a good basis for guidance work, to the end that she may help them to find status and security.

It would be a relatively simple matter if all insecure children could be counted on to respond to the same methods of treatment and handling. The fact is, however, that each child presents an individual adjustment problem and has to be guided accordingly. The acid test of a teacher's skill in personality guidance is her ability to diagnose the individual need and to supply the corrective formula. She understands the importance, for example, of drawing the timid, bashful child slowly out of his shell. Without guidance, such a child will continue secretive, unwilling to assert himself or put himself forward, and will shrink characteristically from all limelight and center-of-the-stage positions. By the slow process of stimulating him to dare more and more to creep into the schoolroom arena of events, she will be rewarded at length by finding him possessed of poise enough to be able to state an opinion, defend an issue, and participate socially in a common task.

Another child may be indolent, lazy, ambitionless. These are highly undesirable traits to allow to persist in any child. Disinterested and inattentive, he is bored with the tasks set him to accomplish and reacts lackadaisacally and spinelessly to them. Shaming, scolding, punishing, will only in rare cases goad such a child out of his torpor. Holding up high standards, insisting that they must be achieved by all or approximated by all, will succeed perhaps only little better. A sympathetic attempt to determine the factors

at work in producing his condition, followed by experimental, often trial-and-error, techniques to reach his inner springs of motivation, will in many if not most cases result in unbelievable transformations in the attitudes of an initially indolent child.

GUIDANCE THROUGH THE CASE HISTORY AND CASE CONFERENCE TECHNIQUE

It frequently happens that the teacher is confronted with the problem of proper guidance of a child that is particularly baffling to her, and the solution of which is not too obvious. In such circumstances, it will be found extremely helpful to assemble as complete a case history of the individual as is possible, and to summon several competent individuals who are acquainted with the child into cooperative discussion, in order to determine what will be the most hopeful methods of procedure in the guidance program.

The case history a teacher assembles differs somewhat from that which would be assayed by a guidance clinic. The latter has the research professional staff to make a thorough diagnosis; the former is not professionally equipped to do a clinical job of diagnosis, and she does not have available a staff to assist her. Nowithstanding these limitations, however, a teacher does have the advantage over psychiatric workers of knowing the child intimately through close association, of having access to his records in previous grades, and of having readily available the counsel of other teachers who have known him in the past. Besides these, she has the medical inspection records and the knowledge of family background that the school nurse and visiting teacher may have accumulated through their home visitations. With this less formalized material, and in an atmosphere of common and friendly desire to find the solution for a particular child's problem, the classroom teacher may in some cases achieve quite as happy results as the professional clinic worker.

The case-history and conference method used by school people has no standardized technique. The record form presented below is one developed by the author for this purpose some years ago; it has been found of practical value by teachers. In any good case history, there need to be gathered together all the relevant data that might throw any light on the particular child. This will include, in addition to his scholastic status since he entered school, a transcript of his medical inspection and health record for the same period. Desirable also—indeed one might say indispensable—is an

analysis of his intelligence as measured by any standardized intelligence tests that have been administered by the school, together with a report of his personality traits as the school has come to understand them. The form presented will indicate how possible it is to assemble all these data in a small space so that they can be available for all when the case comes up for conference.

Present at the case conference should be, in addition to the teacher, such other individuals as are familiar with the situation. These will vary, obviously, from case to case. At one conference, it may be the principal of the school, the nurse, and perhaps some teacher whom the child has previously had. At another, the conference personnel might include several teachers; at another, it is conceivable that a parent might be invited to sit in; at still another, the superintendent, or the vocational counselor, or the school physician, or the school nurse, might be invited. The purpose of the whole thing is, of course, to pool the judgments and insight of several sympathetic and insightful adults, with the purpose of reaching a recommended program of correction or help for the child concerned, and to set up a plan for carrying it through to the hoped-for conclusion.

CASE-RECORD SHEET

Public Schools of Doeville

_____ ___School

Name of Pupil_____Teacher _____Grade ____
Date of inauguration of case-study _____ Chronological age of pupil _____years ____ months
Statement of specific adjustment problem(s)

_____
_____
_____

1. Transcription of relevant data from medical record card
   Eyes _____Nutrition _____
   Ears _____General Health _____
   Throat _____Other Findings _____

What correction of physical defects has been made?

_____
_____

2. Results of intelligence test(s) Test used_____
   Raw score_____M. A._____I. Q._____

3. Educational profile

	norm for grade
Reading	
Language	
Penmanship	
Arithmetic	
Geography	
History	
Civics	
Drawing	
Music	

4. Check-list of traits

	1 Very Little	2 Moderate	3 Average	4 High	5 Conspicuous
Coordination and control					
Range of interests					
Initiative					
Earnestness and effort					
Friendliness and group adjustment					
Reliability					
Leadership					
General background of experience					

[Note: The above are merely suggestive. The author uses a check-list of 32 traits, from which the above 8 are selected.]

5. Initial Case-Conference

A. Members

_____Teacher _____ Principal

_____Superintendent _____

_____ _____

B. Restatement of problem. Formulation of a tentative judgment regarding possible relationship of any of the data included in Nos. 1-4 to the specific adjustment problem under consideration.

_____

_____

_____

_____

C. Procedure determined upon:

_____

_____

6. New Data resulting from carrying out of 5C
   A. From family visitation
      1. Parents Grandparents _____
         Father _____ Siblings _____
         Mother _____ Other family members _____
      2. Family status
         Economic _____ Educational _____ Social _____
      3. Individual history of child as obtained from family interview(s)
         Health _____
         Family adjustment _____
         General social adjustment _____
      4. Degree to which family may be counted upon to cooperate with the school in the treatment of the problem _____
   B. Other interviews (if any) _____
   C. Other new information _____
7. Subsequent case-conference(s)
   A. Summary of problem to date _____
   B. Further corrective procedure determined upon _____
8. Final case-conference
   A. Review of Procedure
   B. Valuable techniques.
   C. Errors in techniques, etc., to be avoided in future case-studies _____

Final outcome at termination of the study
Satisfactory adjustment _____
Good improvement _____
Little improvement _____
No apparent improvement _____
(check which)

Remarks and summary _____

A word of warning is perhaps in order at this point. Nothing in the present section should be construed as seeming to give teachers *carte blanche* for carrying on definitely psychiatric work with their maladjusted pupils. For the ordinary classroom teacher to assume such competence is not to be countenanced. Psychiatric work requires in those who perform it a long and rich background in clinical and professional experience, which teachers have obviously not had. No teacher is justified in adopting the role of clinical psychologist to her pupils. Irreparable harm may be done to children presenting critical behavior or adjustment problems by bungling and incompetent would-be psychiatrists. At the same time, for those lesser problems of school adjustment and personality, teachers ought to feel it imperative to provide the wisest possible guidance, since they may be certain that in only a relatively few communities are professional clinical services available for problem children, and that for the rank and file of them the teacher must continue to be the most hopeful substitute. A teacher's own good sense should warn her when the more simple guidance techniques that she is equipped to administer will be inadequate to meet a specific situation. In such case, she can only use every possible effort to find for the child the proper psychiatric help. Even psychiatrists do not always succeed with problem children; sometimes they fail ignominiously.

DIAGNOSTIC GUIDANCE

In the modern age of testing and measuring ability and progress in about every area and process in education, it is a foregone conclusion that diagnostic testing would not have been neglected. Neither has it, indeed. There are available for the use of teachers standardized diagnostic tests in every subject and at every level of the school ladder. We shall merely call attention to some of the fields thus covered.

1. Reading and Language

Probably in no field has so much work been done to provide teachers with diagnostic help as in the field of reading and language. Reading skill and speed are basal to the study of most other subjects of the curriculum; hence teachers are particularly anxious that their pupils shall be good readers. Research, however, indicates that there is a great deal of failure in reading, even in the first

grade. While psychologists are generally agreed that a child is not ready to begin reading until he has reached a mental age of six years and six months, there has been a constant lowering of the school-entrance age in this country. Thus, in the study made by the author for the Massachusetts State Department of Education in 1945,[2] which included data on this matter from fifty-nine of the leading educational communities in the nation, it was found that in 7 per cent of the cities surveyed, age of entrance to the first grade (not kindergarten) varies between five years and five years and five months; while in the majority of the cities (60 per cent) entrance is permitted between five years and five months and five years and nine months. In only 33 per cent are children required to be five years and ten months, or older, at school entrance. Thus, it is obvious that most normal first-grade children will not be ready to begin reading until they have spent approximately a full year in school; those below average will obviously need to wait longer before they will have achieved a mental age of six and a half years.

Over against this psychological requirement that a child must have a mental age of six years and six months before he starts to read, we have the pressure from parents not only that the schools shall admit their children at five, but that they shall start them forthwith on a reading program. Almost since time immemorial, entering school and learning to read have been synonymous. To have been in Grade I for two months, four months, six months, and yet be unable to ferret out word meanings from a primer or a "reader" and express them smoothly in oral form, either branded the pupil a dunce, or his teacher an incompetent, or both. Teachers have therefore felt themselves compelled to satisfy the parental expectations, and start immature, unready children altogether too early upon a reading program. The results in terms of failure and discouragement on the part of the child victims of this unfortunate policy are obvious. To our pedagogic shame, the first grade has become too often a school for failure, probably upwards of 20 per cent of first-graders failing of promotion at the end of their first complete school year. No wonder that cities like Lynn, Massachusetts, Lakewood, Ohio, Niagara Falls, New York, and Grand Rapids, Michigan, are beginning to eliminate formal reading entirely until the second grade; and that other cities, like Cleveland, Ohio, and South Bend, Indiana, have thrown overboard the old

[2] L. A. Averill, *School readiness, school admission and first grade objectives.*

grade barriers and keep children on the average three years in a primary division, each child being allowed to tackle reading when he is ready for it, whether in the first year, or at any subsequent time when his maturation and experimental background warrant it.

All this suggests the need for a great deal of diagnostic testing and study of primary children, to the end that failure in the first grade may be prevented and, of perhaps still greater significance, to the end that "remedial reading," which rides our American schools at the present day like an octopus, will not be necessary. If the reading program is not unduly hastened, there seems to be no good reason why every child cannot sustain it successfully. It is no longer necessary for teachers to work in the dark in this matter. Administering some form of the *Gates Reading Readiness Tests,* for example, or of the *Metropolitan Readiness Test,* which are designed to measure readiness for beginning reading, to predict the rate of development of reading ability in the individual, and to diagnose his needs in each of several of the most important abilities required in learning to read, will provide any teacher with invaluable data on which to base her judgment of the wisdom of any child's undertaking a reading program.

Other standardized tests, like the *Gates Primary Reading Test,* designed for Grades I and II, will enable the teacher to maintain a diagnostic watch over the progress her pupils are making and indicate to her their progressive abilities and disabilities in word recognition, sentence reading, and paragraph reading. This information is invaluable in planning a corrective drill program. Still other tests at subsequent grade levels diagnose weakness in spelling, punctuation, grammatical form, capitalization, and the like. In these, as in all other areas, corrective drill is applied at the point where it is needed by the individual pupil, random or trial-and-error drill becoming thus unnecessary.

2. *Arithmetic and Number*

How commonly, in the old days in the schools, the teacher would deface a pupil's arithmetic paper with glaring red crosses flung impatiently over problems in the fundamental processes of arithmetic in which the answer was incorrect! Let us suppose that the two following problems, among eight other incorrectly solved multiplication examples on a fourth-grader's paper, have been thus red-marked:

857	378
69	97
7706	2646
5142	3332
59126	35966

Both products are incorrect, and the teacher has so indicated the fact by her penciled wrath. A moment's examination of the figures will indicate that the pupil has performed correctly in both problems every separate multiplication, carrying, and adding, *with one exception*: in both examples he has thought "56" when confronted with the stimulus idea "9 x 7." It is apparent that what he needs is not a zero on his paper, but some functioning drill in the combination "9 x 7 = 63," followed by work on many additional multiplication problems in which the combination "9 x 7" appears repeatedly.

So with other arithmetical processes. Diagnostic tests are available for schoolroom use in the fundamentals, in mixed fundamentals, in fractions and decimals, etc. By their use it is relatively simple for a teacher to identify the besetting arithmetical sins that are impeding her pupils' progress and to provide compensatory drill to uproot them. The results, not only in improved arithmetic papers, but in the morale of those who prepare them, often in perspiration and tears, are highly satisfactory.

3. Penmanship

A diagnostic penmanship scale to indicate flaws in handwriting is very helpful to the teacher in the guidance of children in the development of an easy and legible style of writing. Drill in making ovals and rows of parallel slanting lines, and even in imitating a good copy, all contribute undoubtedly to the achievement of this goal. In judging a batch of writing-lesson papers, teachers formerly were compelled to rely principally upon their subjective judgment as to the percentage or letter value of a given child's penmanship. Diagnostic penmanship scales enable them readily, and fairly objectively, to identify the characteristic type or types of error in a child's writing. Obviously, most children do not make all types of errors in their formal writing, although the author has seen some sample papers—and from grades beyond primary—that actually did exemplify most of them!

In the dozen or more running lines that pupils commonly write

on the average page, there may occur any one of the following different types of error, each one of which impairs the quality of the product; uneven height of small letters across a line; uneven size and height of capital letters; disuniform slant, ranging all the way from backhanded style, through vertical, to forward slant; uneven spacing of words; uneven spacing of letters in a word; uneven distances between lines; lines slanting upward or downward obliquely, instead of being kept in a horizontal plane; uneven left-hand margin; and shifts in general style within a word or line, for example from Spencerian to vertical.

Through the use of a diagnostic penmanship scale, the teacher can quickly pick out the peculiar writing demons that are marring the development of good form and style in the handwriting of any child. Suppose, for example, she finds that several of her pupils fail to keep small letters to the same scale; in subsequent drill periods, she will guide these children to correct their particular errors by "putting them through" the process of keeping the tops and bottoms of letters parallel across a line and down a page. Suppose several pupils produce a mixture of slant, ranging in the same individual, for example, all the way from 30° pitched to the left to 45° pitched to the right; the nature of the drill indicated in such cases is specific and corrective. It wastes children's time and school time and teachers' time to continue, day after day, penmanship drill standardized for every pupil in the class. Diagnostic measurement at least helps to break this senseless lock step.

EDUCATIONAL GUIDANCE

This makes an easy transition point from diagnostic guidance to general educational guidance. The former is made possible principally through the medium of diagnostic tests in the tool subjects, as we have just seen. The latter includes, in addition to tool subjects, the entire elementary curriculum. The purpose of educational guidance is a severalfold one, but we shall have in mind here at the moment principally its function in determining the amount of knowledge a child has obtained in any given subject of study, e.g., geography, history, language, etc., and the speed and reliability with which he can tap retained materials, in an objective test. The teacher or counselor may thus be in an informed position to advise him on his needs, excellencies, etc. If, for example, the national norm on a certain standardized objective test in reading compre-

hension for Grade VI is 62, and if the average score achieved on the test by the sixth-grade pupils of a given school (X) is 66, and if Paul Penney gets a score of 44, it is obvious that much more guidance and individual help and attention must be presently given to him in this particular field if he is to be brought up to grade. If we may suppose further that Paul's intelligence is known to be good average and that his relative scores in history and geography—which require good reading comprehension—are several points below the respective norms and the averages of his mates in these fields, the conclusion is still more obvious that what Paul needs is more help in learning to read with comprehension.

Another, and dual, objective of educational guidance is thoughtful counseling with a child on what subjects he excels in, what ones he particularly likes, or does poorly in, and the arrangment of his program in such a way that he may do the minimum amount for a time in the former, in order to have available the maximum amount for the latter. Even though this may disrupt carefully administered programs and annoy teacher and principal, it is well worth doing, although the doctrine must not be interpreted as recommending a leveling up process for all subjects studied by children in the schools, or the discouragement in a pupil of a zest or interest he has for one subject over and beyond that for some other. It merely suggests, to the contrary, that it is poor mental hygiene for a pupil who is equally capable in all subjects to neglect those in which he has no interest, or against which he has been conditioned by parents or former teachers.

A third objective of educational guidance, which, while of less consequence in the elementary grades, is of much significance in the sixth grade and beyond, concerns the matter of aiding a child to select those schools or courses tomorrow in which his achievement tests demonstrate that he has every likelihood of succeeding. The educational counselor—and at the elementary-school level this is usually the teacher—can be of first-rate help to parents in advising them in these matters. Aware of the abilities or the disabilities of a child, it is not too difficult a task for the counselor to make shrewd prognosis of his future educational possibilities. One sixth-grader may have the potentials for preparatory school, high school, and college; another, for junior high school, and possibly senior high school; still another, for junior high school only; and another, for trade or technical or commercial school. Much unhappiness and bitterness on the part of all concerned may and often

does eventuate when an ambitious parent, unaware of or ignoring his child's limitations educationally, pushes him forward in the college groove. Much family pride and a new life ambition may, on the other hand, move the parents of a brilliant boy, whom the counselor regards as possessing great promise, to find the way for him to advance far beyond their own level or opportunity of school achievement.

HEALTH GUIDANCE

Here is an area that is coming increasingly into the general picture of guidance. Theoretically and ideally, care and oversight of a child's health is the function of his parent. In our modern complex civilization, however, with all its inadequacies of housing and dietary and economic security, it is no longer possible for multitudes of parents to perform this function satisfactorily. For a good many years the schools have been teaching health lessons to their pupils, often, it is true, with little observable effects in the actual lives of the children. More recently, a new emphasis has been placed upon health teaching as guidance. The revelations of national conscription for two wars in the last third of a century have opened the eyes of schoolmen to the glaring failure of health programs as they have been conducted.

Health guidance means far more than formal lessons taught by teachers, sandwiched in among other subjects. Health guidance becomes a matter of continual supervision of children's physical well-being. Physicians and nurses are as essential in the schools as they are in hospitals, the former to diagnose less obvious conditions, the latter to advise with parents regarding corrective measures where they are indicated and to carry out regular, systematic teaching and consultation work with the children as a group, and with children individually as needed. There seems to be no reason why a child with obvious malnutrition, or with puny, undeveloped muscles, or with an incipient scoliosis, or with a heart murmur, or with recurring tonsillitis, or with any other of the developmental or microbic conditions peculiar to children, should not be considered an immediate responsibility for the school.

To induce the family to obtain necessary medical, surgical, dental, or hospital care as indicated, for an unwell or poorly developing child; to recommend clinical examination or treatment if needful; to provide intelligent physical drill and corrective gym-

nastics for the defects already in evidence; to cultivate in the minds of every pupil a strong health consciousness—these are duties and responsibilities that no public school can safely sidestep. Even such simple matters as what to eat and drink, how to walk and stand and sit, how to take care of eyes and ears and throat and teeth, and how to maintain that exuberance of health most children manifest, need to be taught assiduously.

Health guidance through physical education has untold possibilities for the national health. Too often physical education programs at the secondary-school level have meant ball teams and coaches and gymnastic opportunity for the athletic few, while the needy many have been all but forgotten. At the elementary-school level, fortunately, the problem of "teams" is not a particularly serious one. Children in the six-to-twelve age group need guidance in the choice of free-play activities, in developing social maturity and poise, in the use and care of equipment and supplies, in individual physical problems. They need guidance in selection of games to be played, and in improving their skills through such games; they need guidance in leadership and the techniques for its development; they need guidance also in becoming constructive group members or "followers." Guidance through physical education programs will not, as has been feared in certain quarters, kill the spontaneity in play, provided it is kept as unobtrusive as possible. The variety and richness of guided programs should more than make up in the minds of the juvenile participants for any supervision or external manipulation they may sense in the background.

CHILD-GUIDANCE CLINICS

The last quarter of a century has seen the growth of child-guidance clinics, particularly in our larger communities. Originally set up by the National Committee for Mental Hygiene as a means of combating juvenile delinquency through early treatment of antisocial behavior, they shortly mushroomed out to cover any and all behavior problems of children, regardless of whether they might be predelinquent in nature. Some of them have limited their activities to very young children and place their chief emphasis upon aiding parents to establish desirable habits or to break down negative ones. Most guidance clinics, however, place no such limits upon their young patients, accepting for diagnosis and treatment children up to approximately the high-school age.

The setup of a child guidance clinic follows a rather uniform pattern. At its head is a psychiatrist, who has specialized in child behavior problems. Assisting him are one or more psychiatric social workers, depending upon the size of the organization, whose functions include collecting all available information from every possible source about a particular child whose case is to be handled, getting into sympathetic *rapport* with the parents of the child, advising with the psychiatrist in the handling of the case, and aiding him in carrying out the corrective program. There will be, in addition, one or more stenographers to keep detailed records of every case and every interview and to maintain a suitable filing system. There will be also a psychologist to do any psychometric work needful, and—unless the psychiatrist is a competent children's physician—there should be a medical consultant always available. Some guidance clinics are operated by the community, some by the state, some jointly by both, some by the department of education, some privately.

Referrals are made to child-guidance clinics by parents, by teachers and principals, by clergymen, by family physicians, by welfare agencies, by boys' and girls' clubs, or by probation officers and juvenile court judges. Regardless of who takes the initiative in recommending a child for treatment in a clinic, it is imperative that his parents cooperate actively with the program set up for him by the staff. If both parents are eager to assist in bringing about a correction in the adjustment problem of their child, the chances are almost 100 per cent that the clinic can achieve complete success; if one parent is indifferent or averse, the chances drop to, possibly, 50 per cent; if both parents are non-cooperative, the percentage dwindles perilously close to zero. It is for this reason that the functions of the social worker in enlisting and holding the sympathetic cooperation of the parents become so important. Often, too, more or less reconstructing of the family attitudes or pattern has to be done, simultaneously with the psychiatric consultations with the problem child, if the clinic program is to be successful and he is to get his feet again on solid ground.

The following brief abstract of a clinic case will illustrate the procedure commonly followed in handling an unadjusted child:

Arthur, ten years old, and a pupil in a one-room school, was referred to the guidance clinic by his mother, at the insistence of the school superintendent. Without any preliminary warning, and

without any previous history of delinquency or mischievous conduct, Arthur had one afternoon piled on the floor in the aisle beside his seat his reader, his arithmetic text, and his geography, the two former being placed on edge and the latter placed across them for a top. Into the space thus fashioned he stuffed some crumpled paper and touched a match to it. Immediately there was a puff, and a small blaze shot up. In consternation the teacher, with the help of some other children, overturned the "oven," stamped out the fire and immediately summoned the superintendent to deal with the case. The latter took the young culprit home to his mother and gave her the ultimatum that unless she had professional advice and treatment for the boy he would not permit him back in school. The mother was quite as shocked by the whole matter as were teacher and superintendent, for Arthur had given no particular trouble heretofore. To the social worker who visited her next day, however, she admitted that for several weeks Arthur had been morose and sullen, and had not cared to play with his chum across the field, as he had always done before. Medical examination of the boy at the clinic revealed no demonstrable physical basis or any internal source of irritation or pressure that might have been contributory to his misdemeanor. Arthur's first interview with the psychiatrist eventuated in nothing more than getting acquainted. The boy talked guardedly, but he had an I.Q. of 107, a finding which corroborated the testimony of Arthur's teacher, with whom the social worker had an interview, to the effect that Arthur was a somewhat better than average pupil. A second and a third interview with the psychiatrist, spaced two days apart and lasting for an hour, established in the boy a notion that here was a man who was a "regular feller," and who could talk his language. During the third interview, Arthur tossed off his mask and made a clean breast of his conflict. Two months before he had overheard one night a conversation between his parents, carried on in tones loud enough to reach his chamber. To his unmitigated horror, he had heard his father make a passionate ejaculation to the effect that he (Arthur) was probably not his son, anyway. In that awful moment, Arthur's house of cards fell around his ears, and all his security was swept away. Somberly, morosely, he appraised the situation. Rebelling against his unknown paternity, he inwardly rejected, from that night on, both father and mother. Outwardly, he gave no inkling of the turmoil within. The book-burning episode was merely his blind way of striking out against the malign fate that had crept up upon him and his house. The clinic was able to satisfy itself that the charge flung at his wife by Arthur's father was without foundation; that both parents had quick tempers, were of a very jealous nature, and often said bitter things to one another. A great deal of

social work had to be done with both parents, in order to make them see that they were projecting their own emotional difficulties unfairly upon their son, and were making his personality a battleground as a result. They were shocked at what they had done, but they were both intelligent and anxious to make amends. Slowly, Arthur's house of cards reared itself once more, this time with promise of enduring stability.

INTELLIGENCE TEST SCORES IN GUIDANCE

We have said little in this chapter about the role played by intelligence testing in guidance and prognosis. It hardly seemed necessary, for its importance must be obvious to the student. A child's intelligence, as we know, sets the ceiling for his achievement potentials. Regardless of whether a counselor or teacher is guiding a child educationally or vocationally, he needs to know above everything else what his native mental ability is, and intelligence tests are the only objective means of determining it. A low I.Q. not only closes the door upon secondary and higher education for a given individual; it will almost automatically exclude him vocationally from certain higher occupations and professions later on.

An elementary-school child whose I.Q. is found to be too low to warrant his proceeding upward through the grades may be spared the bitterness of seeing other children of his age pass him by if he is taken out of the regular classes and placed in a special class, or an "opportunity class," where he will have a chance to work at his level on educational materials that he can comprehend. Still other children, with I.Q.'s below 70, can be institutionalized, where the best of them can be trained to become useful, well-adjusted citizens later on. At the other end of the scale, children with high I.Q.'s can be identified and, instead of being dubbed "fresh" or "smart" or "trouble makers" by their teachers, helped into a program that will challenge their best powers to carry through.

THE GOAL OF ALL GUIDANCE

It should be apparent from the foregoing pages that guidance in all its phases and forms—and there are, of course, others in addition to those mentioned in this chapter—has but one ultimate purpose: namely, the individuation of learning. If it were possible or feasible to carry on a lock-step system of elementary education in which everybody did the same thing at the same time and at the

same rate, assuming their competence to do so, we should have no need for guidance programs. The children would move like automatons across so much educational terrain daily, until they had traversed the whole extent. But children are no such automatons; they differ enormously among themselves in every trait and capacity; they have different potentials, different ambitions, different purposes. Through guidance, it is possible for the school to adapt itself and its offerings to all, according to their individual natures and needs.

It must be understood, of course, that this concept of the complete individuation of learning is relatively new in education. Until we had available reasonably dependable objective tests of intelligence and of subject matter achievement, for example, it was impossible to individuate learning in anything more than a naïve, hit-or-miss fashion. With the refinement of such measuring sticks, however, educators and teachers can now obtain without great difficulty a tolerably reliable picture of the individual potentials of every child, which then becomes a dependable basis for prognosis and guidance.

It must be understood, too, that in certain areas of guidance we still do not have measuring sticks that are adequate. In the area of personality adjustment, for example, while we possess a number of inventories and questionnaires, only the smallest beginning has been made to provide teachers with objective aids that can accurately evaluate a child's personality assets and liabilities. In this, as in other areas in which teachers have to carry on a guidance function for their pupils, reliance must still be placed largely upon whatever insight and personal intuition teachers may individually have.

PERTINENT QUESTIONS FOR DISCUSSION

1. Do you know any individuals who are "square pegs in round holes"? Do any of them happen to be teachers?
2. How does the nature of guidance done in your school square with the suggested opportunities and needs for guidance outlined in the chapter?
3. List a large number of the interests exhibited by the individual children in your room. In what way or ways are you using any of these as guidance suggestions?
4. Do you know of any dramatic case such as that of Teddy (page 404) in which a teacher's identification of an interest in a child provided the basis for educational guidance?

5. Who among your primary children seem actually to need mothering? Can you supply this need, without danger of overdoing it?
6. Do you have any children in your room who have built up "emotional immunities" toward life that express themselves in resistance to the teacher?
7. Do you have any children, or do you know of any, who place the teacher in Dr. Lloyd-Jones's classification of the "god-role"?
8. Do you feel that children in school today are happy? Are yours? How do you carry out "happiness guidance"?
9. Prepare as full and accurate a case history as you are able of one of your pupils, or of some child whom you know.
10. If possible, arrange to sit in at a case conference at which the teachers (and others) are discussing guidance problems of one or more pupils. Does any constructive result issue from the pooling of information?
11. Why should a teacher never attempt to carry on strictly psychiatric work with a maladjusted child?
12. If you are a first-grade teacher, make an estimate of the number of your pupils who are unready for a reading program at the present time. How many of them will fail of promotion to the second grade?
13. Investigate and report upon the nature and amount of "remedial" work carried on in your school in reading and arithmetic in the various grades.
14. Secure from the instructor sample diagnostic tests in the tool subjects and study their construction.
15. Apply the Freeman Diagnostic (or some other) handwriting scale to sample pages written by your pupils. What are their chief faults?
16. Make a distribution of the scores obtained by your children on a standardized subject-matter test, and compare their median (or average) with the national norm for the test at your grade level. What suggestions for guidance do you glean?
17. If there is a child-guidance clinic in your community, confer with a member of the staff concerning its setup, case load, personnel, etc.
18. Examine the intelligence-test scores for the children in your room. What indications for guidance do they suggest?

READING COURSE TO PARALLEL THE CHAPTER

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CHAPTER 16

EARLY CHILDHOOD TRAINING

Some Children To Identify in Home, Nursery, and Kindergarten

A child who . . .

(1) is as tall at three and a half as another child of five;
(2) weighs as much at three and a half as another child of six;
(3) has shown good resistance to children's diseases;
(4) has contracted several children's diseases;
(5) shows obvious aftereffects of some disease;
(6) has perfect deciduous teeth; one whose first teeth show neglect;
(7) probably needs more and better sleep than he is getting;
(8) is incessantly active;
(9) shows better-than-average motor coordination for his age;
(10) likes to be a helper; one who shuns "play-work";
(11) is methodical in the care of his toys; one who is irresponsible;
(12) shows selfish behavior; one who shows approved social behavior;
(13) has frequent recourse to temper tantrums;
(14) is timid in situations that do not bother other children;
(15) is possibly an "emotional pawn on the family chessboard";
(16) shows evidence of overstimulation;
(17) is nervous and jumpy
(18) is disobedient and defiant;
(19) is a little runaway, and must be watched incessantly;
(20) has formed food aversions and whims that ought to be uprooted.

GENERAL ORIENTATION

In the preceding chapters of this book our primary concern has been with the elementary-school child; that is, with the child from six to twelve years of age. In this concluding chapter it is our purpose to present a brief discussion of the psychology of the preschool child, and to indicate some important aspects of early childhood training.

It should perhaps be pointed out at the outset that there have been two rather divergent points of view regarding the advisability

of extending downward the educational effort into the early childhood stage. Some people are of the opinion that the child under school age belongs in the home, and that whatever training or education he may receive should be limited to what can be offered informally in that restricted environment. They fear that association of many young children together in a nursery school—or even in a kindergarten—may be too stimulating for their ultimate best good. At the other extreme are those who believe equally earnestly that children can profitably be placed early in a large social unit and there learn to get along with and work cooperately with others of their own age. They point out that the nursery school and kindergarten provide society with ideal opportunities to maintain proper health supervision over children thus brought early together in a common social grouping, and that those children who have had the experience of a year or more in such preschool groups prove to be better adjusted when they enter the first grade, and make better school progress thereafter. Lacking any very conclusive research data covering these matters, one can do little more than to acknowledge that both sides have some justification for their viewpoints. We should probably agree without debate that a child who comes from a broken home would certainly be better off in a nursery school or in a kindergarten than he would be elsewhere; we should agree, also, that there is no substitute for an adequate home.

THE NURSERY-SCHOOL MOVEMENT

Nursery schools existed in certain European countries before they were introduced in the United States. In this country their development has taken place chiefly since 1925. Previous to that time, such schools were limited principally to private colleges and universities and other research centers, in which they were maintained as experimental or observational laboratories where students in training could observe the growth and development of younger children. After 1925, nursery schools began to make their appearance in congested areas of large cities under the auspices of private philanthropic organizations. The depression years following 1929 afforded strong stimulation to the movement, although interestingly enough it was not primarily or basally any keen appreciation of need for facilities for training young children that prompted the establishment of nursery schools, so much as the opening they provided for

work relief projects for unemployed teachers, nurses, dietitians, cooks, *et al.*, who were without employment and in need of assistance. With the end of the period of industrial stringency in the late '30's, there developed wide agitation to continue the idea of nursery-school training and to make the schools public. This ambition on the part of many parents and educators would indicate that the philosophy behind the movement had come to be rather widely accepted and approved.

KINDERGARTENS ARE MUCH OLDER

Kindergartens have, of course, enjoyed a much longer history than have nursery schools, the kindergarten idea having become well established in this country well before the end of the last century. Many public-school systems have adopted them into their setups, although they have never become anything like universal. In a survey of fifty-nine prominent school systems in the United States, made by the author in 1945, the following interesting facts regarding the number of kindergartens were found:

CHILDREN ENTERING FIRST GRADE FROM KINDERGARTEN

Percent of all first-grade entrants coming from kindergartens	*Number of cities of the 59*
90 to 100	26
80 to 90	1
70 to 80	4
60 to 70	2
50 to 60	4
40 to 50	1
10 to 20	1
"Less than 10%"	8
"None, or extremely few"	10
"A very large per cent"	1
"A large per cent"	1

From the tabulation it is apparent that approximately one-third of the fifty-nine cities surveyed maintain kindergartens for less than 10 per cent of their children. On the other hand, somewhat less than half of the cities provide kindergartens for 90 to 100 per cent

of their children. A survey of kindergarten opportunities in less populous communities would, of course, reveal sharply reduced percentages of children entering the grades via kindergarten. Thus, in the State of Massachusetts, statistics on file with the State Department of Education show that in only 48 of the 350 towns and cities in the Commonwealth are any public kindergartens at all maintained. There are, of course, large numbers of privately conducted, small kindergartens in this state, as in most others, but obviously their services can be available to but a relatively small number of the children in the preschool brackets.

It should be pointed out, in passing, however, that notwithstanding the fact that relatively few kindergartens exist in this country, there has developed a tremendous "kindergarten extension" movement in the various states; that is to say, there has been a definite and strong trend in many communities toward introducing the kindergarten setup and program into the first grade, and so delaying wisely the formal training in reading and number, for which relatively few first-graders are ready at the time of entering school.

MENTAL POWERS OF THE PREPRIMARY CHILD

To arrive at a hasty picture of the mental powers of the preprimary child, we may envisage him in terms of what he can and cannot do when confronted with the Stanford-Binet test situation. The two-year-old child can identify pictures of a few common objects, like shoe, clock, chair, bed, etc., but fails to recognize stove, umbrella, cow, moon, rabbit, cat, etc. The three-year-old can repeat three digits, but cannot repeat four; the four-year-old can reproduce orally a simple declarative sentence, but cannot define a ball or a hat or a stove. The five-year-old can count four objects, but he cannot recognize the meaning of such words as gown, eyelash, roar, etc. Again, the two-year-old can point to the hair, mouth, ears, hands, when so directed, on a doll manikin, but he cannot copy a circle or string four beads on a string after having just seen somebody else do it. The three-year-old can remember at least one common object just seen in a picture, but he cannot repeat "We are going to buy some candy for mother," when asked to do so. The four-year-old can tell what a chair and a dress and a shoe are made of, but he cannot copy a square or count four or more objects in front of him. The five-year-old can define a ball,

a hat, and a stove, but he cannot trace his way through a simple maze.

At two and a half years, a child can repeat two digits, recognize a chair, an automobile, a box, a key, and a fork, and tell what a cup, a shoe, and a penny are used for. A child three and a half years old can tell which is the longer of two short sticks, obey simple commands, like "Put the spoon in the cup," and point out several objects in a picture. The child four and a half years old can repeat four digits, make aesthetic comparisons between pretty and ugly people, and give opposites in analogies.

The abilities and skills listed in the preceding paragraphs apply, of course, for the *average* child at the age stated. Brighter-than-average children may, at two years of age, be able to perform the tasks graduated for children of two and a half or even three and a half; duller-than-average, by the same token, may at five years of age be able to do tasks no higher than the four-year level, or even the three and a half year level. It must be understood, in other words, that intelligence distributes itself among unselected pre-school children, as among all other unselected groups, along the bell-shaped curve, with the majority testing at average, 25 per cent below, and 25 per cent above average. Within each of these three groupings, moreover, there is variation in both directions, as we have seen in Chapter 11. Thus, we have very dull, average dull, and slightly dull; low average, average, and high average; brighter-than-average, very bright, and exceptionally bright.

The teacher working in the general field of early childhood education comes shortly to recognize these diverging classes and the individuals that make them up. Mental ages vary with chronological ages, and the derived I.Q.'s of preprimary children in any schoolroom will tend to be quite heterogeneous. The only selective factor likely to be at work in the nursery school is the economic status of the parents; in so far as Nursery School A is a center for the younger children of economically fortunate parents, the I.Q.'s of the enrolled children will tend to be skewed in the direction of better-than-average, or plus 100. Nursery B, which serves a slum area, will tend to enroll children on the lower-than-average side of the median, and whose I.Q.'s are therefore on the minus 100 side. Even in such partially selected groups as these, however, there will be rather wide variations in mental ages and I.Q.'s.

PHYSICAL ASPECTS OF PREPRIMARY CHILDREN

1. Overlapping in Weight and Height

As we already know from previous study, the period of most rapid extrauterine growth is the first year. Growth during the second year is rapid also, but it does not approach the rate of the first twelve months. During subsequent school years up to the age of formal school entrance—that is, between two and six—the growth curve rises less precipitously. There is steady gain each year, it is true, but the increase in weight and height during each of these time units is definitely less than it was during the first two years. The following figures will be illuminating in this connection:

Age Level	*Weight range*	*Height range*
3½ years	26 to 35 pounds	34½ to 38½ inches
4½ "	29 " 39 "	36¾ " 41½ "
5½ "	32 " 43 "	39 " 44 "
6½ "	35 " 48 "	41 " 47 "

Children three and a half years of age may, as shown in the tabulation, vary between 26 and 35 pounds in weight, and between 34½ and 38½ inches in height, etc. It is obvious that there is a great deal of overlapping in both height and weight among children of the same chronological age. The heaviest child at three and a half years, for example, weighs as much as the lightest child at six and a half. Similarly, the tallest child at three and a half years is almost as tall as the shortest child in the five and a half year classification. This wide overlapping should indicate to the teacher and parent that there is no such thing as an average child. Because of such contributory factors as differences in hereditary stature and bulk, racial or physical type, size and heaviness of bones, stage of physiological or anatomical development, condition of nutrition, etc., the lightest of ten four-year-old children may weigh ten pounds less than the heaviest, while the tallest of them may tower five inches above the head of the shortest.

2. Health Status

The incidence of the children's diseases among children in the three-to-five age group is, as must be expected, high. Because the protective mechanisms in the blood are weak and have little germi-

cidal power, the microbes of disease, once they find an entrance into the body of a young child, multiply rapidly. White corpuscles, while they exist in ample numbers in the child's blood stream, possess little strength when it comes to attacking and destroying the virile organisms of disease. During the first six months or so of its life, the infant carries over from its mother's blood a natural immunity to certain forms of microbic disease; thereafter, however, the maternal protection wanes and the new organism must battle for itself when it is invaded by disease germs. Even the lymphoid tissues, notably the faucial and adenoid tonsils, which, as we have seen, appear to have been designed by nature to enmesh and to destroy invading colonies of germs seeking a foothold in the child's organism, are themselves inadequate to the task, and become frequently diseased, thereafter serving as points of entry for further bacteria. For these and other reasons, children in their earliest years require much safeguarding and supervision if they are to escape the inevitable toll of those diseases to which they are peculiarly susceptible.

The author has known a number of parents who suppose erroneously that every child is doomed sooner or later to "catch" the more common children's diseases—notably measles, mumps, whooping cough—and the sooner they "have" them and get them over with, the more easily they can breathe. Some parents have been known actually to expose a child wilfully to these diseases in order to get the ordeal over. These opinions and practices arise out of a fundamental misconception of fact. In the first place, there is no disease that does not have a mortality rate—at least a statistical one—though it is obviously negligible for the simpler of the children's diseases. To expose a child to any disease may thus be risking his life. While normally children recover without too much discomfort from the more common diseases of childhood, no one can be absolutely certain that in the process of fighting a specific disease a child's blood may not be too depleted, or his body chemistry may not be too rudely upset, or his heart may not fail in the emergency that confronts it, and that, as a result, tragedy may not ensue for the family.

In the second place, it is not true that all children are "doomed to catch all the diseases that are going." After all, the majority stay free of all of them, or, at worst, have no more than one or two during their entire childhood. An examination of health record cards in schools will reveal the fact that there is a good sprinkling

of children who have had mumps and measles, and perhaps whooping cough, but that those who have had scarlet fever, diphtheria, and others of the more serious afflictions of childhood, are scattering. Every day that a parent can postpone his child's catching any of the children's diseases makes subsequent contraction of them less likely, for as his age increases so does his resistance power.

Finally, in the third place, the gravest damage often wrought by the children's diseases is in the unfortunate aftereffects most of them frequently have. Measles may put a child *hors de combat* for only a very few days, but may do irreparable damage to his eyes; scarlet fever may immobilize him for a week's time, but may leave his heart impaired permanently; whooping cough may run its course in a week or less, but may weaken lungs and even bring on strabismus. Any one of them—and any one of the others—may cause infection in the throat and middle ear, leading occasionally to suppuration, to mastoid infection, and sometimes to deafness, or to greatly reduced hearing acuity.

The teeth of young children need constant care. Somewhere between the ages of two and a half and three years, the entire twenty teeth of the temporary set make their appearance. The last one on each side of the jaws—the temporary molar—is usually the last to emerge, and frequently, the gums being by then rather hard, their breaking through is uncomfortable and may be even painful. During the time between the eruption of the deciduous teeth and the coming of the first of the permanent set, at about six, parents should see that their children's teeth are kept clean and the gums properly massaged. The enamel on the deciduous teeth is thin, and if by reason of faulty diet or poor general health it breaks down at any point, it is easy for infection to enter and to work its way into the unerupted second teeth, causing them to be diseased when they emerge. As a rule, the dietary of little children contains only a minimum amount of acid, so that tooth enamel is not likely to give way; sometimes, however, the diet of a child is poorly selected and dental trouble may get an early start.

As we have noted, early childhood is a period of high disease incidence. Statistics indicate that the peak age for diphtheria—the most dastardly and the most readily controllable of all the children's diseases—occurs at approximately twenty-four months. Taking all illnesses together, the time of greatest prevalence is under five years. Morbidity and mortality rates differ radically according to locality, reflecting, as we might infer, the rigidness or laxity

of health regulations and the general standards of preventive hygiene in the community. While there has been a flattering reduction in the mortality rate among preschool children the country over, there remain sections where it is still high.

The following table shows the incidence of several of the children's diseases in a typical American community having some 200,000 population. The figures are for the year 1945:

Disease	*No. Cases Reported by Physicians, 1945*	*Mortality (No. Deaths)*
Scarlet fever	510	2
Whooping cough	344	1
Measles	712	0
Chicken pox	592	0
Mumps	135	0
Diphtheria	1	0

IMMUNIZATION PROGRAMS

For a good many years, most of our communities have required that every child must be vaccinated against smallpox before entering school. So thoroughly frightened have our people been regarding this disease, which, a few generations ago, disfigured almost every face and killed a sizable percentage of those whom it attacked, that they have cooperated actively with health authorities in securing this protective against the dreaded pox. Somewhat recently —within the past third of a century—the propaganda of health leaders to establish Schick testing and immunization programs to save children from another scourge—diphtheria—has been likewise successful. Only a few communities and a few individuals still resist Schick testing for their children. The heartening result of this program has been the practical elimination of diphtheria from the agony rolls of parents. Here is an infantile disease of which medical men are absolutely masters, and there is not the slightest reason why any child should ever have the disease again. Only ignorance, superstition, or criminal negligence can now be blamed for outbreaks of this scourge among children, or for its sneak attack upon any individual child. No parent anywhere need longer watch the harrowing spectacle of his child choking to death under the membraneous fingers of this monster.

As immunization and protective programs are initiated to control the incidence and spread of these and other diseases, parents should offer their fullest cooperation to the health authorities. Already the conquest of measles and scarlet fever is within sight, and other forms of disease will ultimately yield to scientific control. Before little children are brought together in any kind of social unit like a nursery school, or a kindergarten, they should be individually protected from the controllable diseases. In the unit, moreover, constant careful supervision should be maintained over the health of those enrolled. This should be an imperative for every organization having in its charge children in the preschool brackets.

SLEEP REQUIREMENTS OF PRESCHOOL CHILDREN

As we shall see in the next section, children in the two-to-five age group are hyperactive and hence require a great deal of sleep. Two-year-old children need probably on the average about fourteen hours of sleep each night; three-year-olds should have approximately thirteen hours; four-year-olds, twelve; and five-year-olds, eleven or twelve. It is usually easier for parents to insure that their younger children—those in the preschool group—shall get sufficient sleep nightly than it is to insure that their older children shall. The latter are very much more nomadic and restless, and they are anxious to keep going. The former are only slowly shaking off their intra-uterine lethargies and feel somewhat less impelled to prolong the period of wakeful activity.

In the modern age there is much to make difficult the role of those parents who still believe in the validity of long hours of sleep for their children. In an inquiry recently conducted by the author in which the sleeping habits of 555 children, aged three to twelve, and living in an urban community, were analyzed, it was found that many parents were troubled by certain disturbing factors that interfered with what they believed to be the normal sleeping needs of their younger children. The cooperation of the parents was enlisted by means of a letter in which they were asked to keep an accurate record over a ten-day period of the number of hours each child was sleeping. They were requested not to tell the children of the experiment and to "attempt no modifications in their customary sleeping hours." Forms for recording the sleep of each child were supplied.

The amount of sleep these children averaged nightly for the ten days follows:

Age in Years	3	4	5	6	7	8	9	10	11	12
No. of Children	5	9	19	47	75	88	97	94	60	61
Average Sleep in Hours	12.5	12	11.5	10	11	10.5	10	11	10.5	10

There is obviously wide variation in the amount of sleep these 555 children are getting. Twelve-year-olds are getting the same amount as six-year-olds; seven-year-olds, no more than ten-year-olds, and five-year-olds only half an hour more than ten-year-olds. These parents blamed the following factors for their children's insufficient hours of sleep:

Disturbing Factor	*No. Parents Naming*
Radio	163
Movies	68
Outside activities	56
Irresponsible discipline	50
Poor sleeping conditions	42
Homework	39
Daylight saving	37
No complaints	100

MOTOR ACTIVITY

Not long ago one of the national pictographic magazines carried a series of photographs of a fifteen-month-old boy and a twenty-three-year-old college athlete, with the latter endeavoring to follow through imitatively all the motor activities of the former during the waking hours of a single day. Squatting down and jumping up; lolling over furniture; "riding" a hobbyhorse; lying prone and getting up; somersaulting on the divan; pantomiming "pat-a-cake"; crawling upstairs on all fours; drumming on the piano; flopping about over furniture and floor—it was, all in all, an extremely taxing day for the athlete, with his 205 pounds, pitted against his 25-pound opponent. While the photographs recording the "contest" may have been specially posed in some cases, they suggest vividly the enormous energy output of a young, healthy child in the course of his day's activities.

Little children are incessantly active. From that magical time in their second year when they are first able to run about to the end of the preschool period, they are in continual muscular action. Before the age of three, there is commonly a good deal of pointless, purposeless activity as they toss objects about, run hither and yon through room and yard, and loll about sofas and floors. During all this random and explosive activity, big muscles are growing harder and motor control is becoming more and more coordinated. Increasingly after three, their activities become more purposeful and show evidence of planning. Random motion gradually refines itself into directed motion; running about becomes a means to a desired end; lolling gives place to climbing and jumping and balancing. The smaller muscles, too, enter a heyday of growth and coordination. The four-year-old can approximate the edge of the pattern with scissors; he can lace his shoes, place blocks in a design, ride a tricycle. The five-year-old can write his first name, copy a square, carry a glass of water without spilling it, draw a satisfactory—or at least a recognizable—sketch of a man.

Parents can do a great deal to encourage in their younger children the development of neuromuscular coordination by providing them with plenty of opportunity to carry on purposeful activity. This may be accomplished through giving them appropriate toys that require manipulation and skill to operate, and training them to take care of them, put them in their proper places when they are through with them, and make simple "repairs" to them when a wheel comes off, or a nut unscrews, or a peg drops out, and the like. Another important way in which parents can promote motor control in the preschool period is through the assignment of simple tasks about the house that little children can learn to do, thus really serving as "mother's helpers" as well as gaining in motor control. Such tasks should be always within the present or early abilities of the child; they should be understood and acknowledged, too, by everyone to be helpful to the general living in the home. The young helper should be given whatever adult aid and supervision may be necessary while the needful skill is being established and should be met very frequently with words of approbation to indicate the parental pride in the contribution to the family circle. If there is an occasional accident—an overturned dish, or spilled water, or a broken egg—it should be regarded as all in the day's work, and not unduly magnified. "Donny will do better next time!" is the only proper adjuration with which to meet such a situation.

There are many helpful tasks that children approaching five years of age can learn to do. Since mealtime and eating are universally recurring experiences that children particularly enjoy, any little services they can render that center about this daily drama will be likely to engross them. They can bring in and help to arrange flowers for the table; they can learn to place knife, fork, and spoon at each plate; they can carry in salt and pepper cellars; they can lay napkins; they can draw up chairs; they can count out the number of dishes needed; they can help clear away the table; they can have their own wiping-towels and learn to wipe an occasional dish; they can even have their own low washstand and dish pan and can dabble some of the sturdier dishes in the foamy water; they can carry garbage to the bucket outside. In these and many other ways, children in this age group can perform real mealtime services that will not only help their mothers but increase their own motor skill and coordination.

So with other home and family situations. There is drama in washday; in ironing day; in sweeping and dusting day; in lawn-trimming day; and in each of them there is abundant opportunity for young children to play happy roles of helpfulness. A little tub and washboard and a small bar of soap will delight the heart of almost any five-year-old; and if a low line can be hung, small things and dolls' clothing can be washed and put out to dry, quite after the fashion of the big-sized wash on the reel. Mother may need to go over the ironing after the toy iron has been duly plied, but that is not a serious matter. Pieces of dough cut into "cookies" with a thimble and baked in the oven taste better to a little child than do the regulation-size cookies cut out by mother. A child's broom will go nicely into corners that the vacuum sweeper will not reach and will clean the door mat as well as a larger broom. It is easier for the five-year-old to dust the rounds of chairs and the legs of the piano that it is for mother herself to stoop down and do it. A small boy can wield a rake or can even help his father push the lawn mower, and he can pick up papers that have blown into the hedge, gather leaves that have fallen, and pull out weeds from the petunia bed—all quite as well as and much more easily than his taller father can.

In play activities, quite apart from "play work," young children also grow in their motor coordinations and in their control over large and small muscles. At the two- and three-year level, they are indefatigable manipulators—of dolls and blocks and pegs and

marbles and constructional toys, deriving much satisfaction from handling them, or rolling them about, or throwing them, or building them into some design or other. By four, they are interested in plastic materials, rhythm play, humming, wagons, wheelbarrows, carriages, etc.; at five, they like scissor work, painting and coloring, blowing soap bubbles and playing with water, dramatic tales, rhythm games, beads, puzzles, beanbags, blackboard and crayons, spools, trains, pegboards, and the like. Increasingly, the parallel play of the second year becomes truly social play in the years immediately subsequent, particularly if there are others of approximately the same age with whom children can mingle freely.

SOCIAL TRAINING

We have already referred to the "play work" or helping activities of the preschool child. Through them, much training is afforded also in social conduct and demeanor. If young children are not disabused of the notion that they are really helping mother, or grandmother, or father, or somebody else in the home, when they prepare meals and cook and set tables and sweep and dust with them, they may grow readily into the helping attitude. Beyond these participative processes, children may achieve social training by being taught to be methodical, to keep their belongings in their proper places, to hang up their clothing, hats, caps, etc., to wash face and hands and care for teeth, to speak politely, to play only where it is safe, etc.

In nursery school, while little children prefer play with materials rather than with other children and maintain this solitary activity more than half the time, there is in evidence the genesis of socialization as they begin to show signs of mutual interest in the same project or play-activity. This development becomes still more striking in the kindergarten, in which five-year-old children may unite happily in ring games, rhythmical play, and simple dramatization, all with a minimum amount of conflict among themselves. An excellent background for social training is provided also by nursery school and kindergarten through the opportunity the teacher has to help the children control crying, outbursts of temper, selfish behavior, overaggressiveness, and the like. Property and priority rights may also be respected by young children if they are trained to take turns at the slide, to wait until another child has finished with the paints, to return to the real owner the marble that rolls from his pocket, to request permission to borrow the sand pail, etc.

Kindergarten children are not too young to learn to say "Please," "Thank you," "Excuse me." "May I?" and to make a beginning of observing the simpler conventions of politeness and thoughtfulness.

TRAINING THE EMOTIONS

1. Fear

We expect a good deal of emotional display of one sort or another in younger children. At this stage, fear comes often as a result of insecurity. Three-year-olds commonly suffer considerably from their fears and apprehensions. Too small to protect themselves physically, and mentally unable to convince themselves of the pointlessness of most of their fears, they easily allow their imaginations to run away with them and conjure up frightening spectacles. Fears of the dark, of kidnapers, of strangers, of snakes and rodents, of high places, are common among nursery- and kindergarten-age children. Most if not all of them have been, of course, conditioned by vivid experience, or by unwise example at home. Sometimes a new type of fear emerges in a child when he enters an environment where there are other children. If he feels himself inadequate, is less able than the others to find his way about, is more maladroit than they, is less skilled in his play, and shrinks from defending his rights, he readily develops a personality fear that may do much to damage his social evolution unless it is promptly uprooted.

The training needed by little children who manifest one or another of these fears is a redirection of their attention away from the bothersome objects or situations, and a focusing of it upon desirable or intriguing goals. The elimination of early childhood fear is thus rather a matter of change of emphasis and attention than one of actually reducing a frightening stimulus to a non-frightening one. Fear of strangers, for example, is not eradicated by talk about their harmlessness nearly so effectively as it is by talk about interesting things one sees in the store windows, how the policeman directs traffic, and the like. Strangers and passers-by tend to fall into their appropriate setting when such an approach is made, and fear of them will shortly be found to be lessening. Personality fears or feelings of inadequacy may be slowly overcome in the little child if he is helped to develop skills in motor areas in which he is lacking, and to perform successfully enough so that he may gain in self-confidence and self-reliance. While this transformation is often a tedious and somewhat discouraging process if the victim is allowed to persist in his timidities and personality withdrawal up into the

school years, it can be telescoped into a much briefer period if the program is started while the child is still in the nursery stage, or even in the kindergarten.

2. Anger

Displays of anger are frequently made by younger children. Prominent among the roots from which anger springs are frustration, jealousy, and interference with one's plans or activities. The emotion may be vented upon an individual, or it may be beaten out against a material object, such as the floor or the walk, a cart, a fence, etc. Little children tend to be "bull-headed" in much if not most of their planning; hence, they forge ahead with their purposes and frequently meet frustration. They are lacking in judgment, moreover, and in the ability to "calculate" distances, heights, widths, and the like. They are clumsy and maladept in managing their bodies and their playthings; hence, again, they often come to grief.

Merle, 3½ years old, had loaded his wagon with a toy ladder, crane and automobile, preparatory to transporting them from the living-room back to his playroom on the same floor. In hurrying across the floor, dragging his loaded cart behind him, he failed to estimate correctly the width of the thoroughfare he had selected, and suddenly ladder and crane brought up against a chair, and were promptly spilled off on the floor. Merle, probably a bit overtired from his play, flushed with anger and flew immediately into a passion, kicking the offending chair from his path, thrusting ladder and crane heavily against the wall, and leaving his cart overturned in the middle of the floor.

There are many things in the experience of younger children to cause frustration. Inability to have one's own way because of the superior authority or strength of elders; real or fancied slights suffered when another child wins momentary preferment in the family circle; jealousy over the new baby who usurps everybody's attention; jealousy over thoughtless expressions of maternal interest in the visitor's child; permissions withheld; toys that break or "jam"; assistance proffered when one wants no assistance; being summoned from play when one wishes more than anything else to continue with it—these are among the common situations that bring defeat and thwarting to the youngster. Unable or unequipped to meet them with deliberateness, he is very likely to be thrown into some degree of rage at his frustration.

Temper tantrums are common outlets to frustration at the

nursery-school level; even during the kindergarten age they are occasionally trotted out by some children who have not been properly taught to control themselves emotionally. The temper tantrum is a blind, furious outburst in which the small actor may throw himself on the floor, coil and uncoil like a worm, thrash about, and perhaps scream loudly. It represents an unlovely extreme of emotional expression that has no business to persist beyond an initial infantile episode or two. Used as a weapon by a shrewdly calculating child, it may so frighten his parents as to prompt them to withdraw the refusal and grant the coveted privilege demanded. If employed thus successfully a few times, it becomes a permanent part of a young child's stock in trade, and may greatly retard or even prevent his emotional maturing. Used as a blind, "hitting out" reaction to thwarting, the temper tantrum may involve no other personalities than that of the subject, and may run its course as a strikingly immature emotional mechanism. Parental control of tantrums may consist in ignoring its early exhibitions; or it may be exerted by seeing to it that the proper adaptation to a child's tasks and purposes is made to his stage of maturation and his level of potential achievement. When one is completely baffled, and there seems no avenue of escape from failure, it is not illogical—provided one is only three or four years old—to roll and kick on the floor.

3. Love

Not a few parents make the mistake of assuming that young children should be treated objectively, and that any manifestations of parental affection for them are to be avoided, to the end that they may grow up to have independent, weaned personalities. There is nothing in modern child psychology that would condemn any mother or any father for loving his offspring and for showing his love in no uncertain terms. Children need affection as a basis for their security building, and there is probably no substitute for the parental affection in the early years of the individual. Most children need more loving, not less.

However, there is of course a selfish brand of love that a parent may have for a child. This may be the case when either parent seeks selfishly to appropriate to himself the affections of the child and strives "to be everything" to him, excluding the other parent as far as possible from the arena. This commonly occurs in a woman who has carried over infantile attitudes toward the marital situation, and

who has been "disillusioned" by it. It may likewise occur in a man who has grown up a mamma's boy, unweaned from his own mother emotionally and unable to substitute the new family circle for the old. Such a parent may attempt to derive security in the new situation by centering upon himself his child's affection and endeavoring to absorb it all. He may be more indulgent, grant more favors, than the other parent; he may even take the child's side characteristically whenever an issue arises between the youngster and the other parent. Through these and other unfair practices, a love-starved or an emotionally infantile parent may effectively and securely fasten the heartstrings of his child about himself. This results in a decidedly unwholesome situation for all concerned, and notably so for the child, who becomes an emotional pawn on the family chessboard. In contradistinction, the emotionally adequate home is one in which the two parents—in the first instance—love one another, and—in the second—share evenly and unquestioningly the love of their children.

DANGERS IN OVERSTIMULATION

After all, little children *are* little; they lack the endurance that sometimes parents assume they have, and that they themselves appear to have. They use up in their activities an enormous amount of energy, and may be left limp and tired long before the bedtime hour arrives. In the "all-or-none" expenditure that characterizes them, they put everything they have into their play, holding nothing back. Words of caution are often necessary to restrain the preprimary child from becoming overtired, and frequent rest periods and "naps" are indicated. Parents sometimes add unwisely to the nervous and physical strain under which little children carry on their intriguing activities by showing them off, overbudgeting their time, enrolling them in folk-dancing or other social groups, quite forgetful of the fact that their small organisms tire easily.

There are various indications that a young child is being overstimulated and allowed to become overtired. Fretting, whining, and excessive crying, while they may arise from other causes, should be regarded as warning signals that a child may be the victim of overstimulation or overfatigue. In their hours of greatest refreshment and fitness for the day's work and adventurings, children are not commonly whiners, unless they may have been conditioned to such roles by faulty adult handling. Instead, they are happy, alert, eager, invincible. It is principally only when consumption of energy

or of nervous reserve becomes excessive that they grow fretful and ill-tempered. Eneuresis also, if it becomes habitual, or if it persists into the third year, may be indicative of overstimulation and the tensions that accompany it. This particular difficulty is intensified by the scoldings and punishments that mothers occasionally administer to an incontinent child, thus establishing a vicious circle and increasing the nervous condition of the offender. Terrifying dreams and nightmares, if they occur more than very rarely, should indicate also to parents that children may be victims of emotional experiences during the waking hours, and that correction of this condition should be sought promptly.

Fretfulness, eneuresis, and terrifying nightmares, and other manifestations of nervousness in a child, may, of course, arise from other causes than overfatigue and highly emotional experiences. When any of them makes its appearance, one should ask, in addition to questions about possible overexhaustion, physically or emotionally, whether the child may be getting a diet too rich in carbohydrates, too highly spiced or seasoned, or otherwise unsuited to his alimentary needs and capacities; whether he is worried or frightened about some family problem that unfortunately has reached his young ears; whether he is expected to do tasks that are patently beyond his years or ability; whether there may be some physical pressure or irritation in his system that needs medication, surgery, or other correction; whether he may feel ashamed or is emotionally upset from feelings of guilt that may have been imputed to him; and whether he is jealous of another sibling, etc. Any of these situations may induce pronounced symptoms of nervousness in a child, and if there is a suspicion that any one of them may be at the root of his unstable behavior, the cause should be determined and eliminated forthwith before irreparable damage has been done, either to health or to personality.

THE STRUGGLE FOR POWER

The struggle for mastery and self-determination does not wait for the school years to make itself felt. The preschool period is more or less dominated by it. Failing to understand this struggle that takes place in very little children to achieve power and domination, parents are often bewildered by its evidences, and uncertain how to handle it. If they can but understand the passion in every normal creature to gain power and control over his surroundings, they will

find some of the otherwise unaccountable behavior of little children to be normal rather than abnormal, and will be in a better position to help them control it. They, too, have gone through the same struggle for power, at each successive level of their personal evolution, and still desire a goodly measure of it. It is unfortunate indeed if they meet the child's struggle for power with their own opposed wills, and so make the family circle into an arena where continual warfare between child and adult goes forward.

Take the matter of disobedience, for example. The five-year-old, requested to do something specific, parries with: "I won't!" The outraged parent, his own power challenged, retaliates with: "Well, you *will!*" In this dramatically tense situation, the child is assaying power he does not possess, except perhaps in fiery words of refusal; the adult is marshalling power he knows he possesses, at least in fiery words of command. The resulting clash of wills is as devastating as it is needless. Calm examination of the fairness of the request, of its reasonableness, and of the full competence of the child to execute it should precede the imposition of the command which, if made quietly and without irritation or needless flaunting of adult authority, will ordinarily be honored by the child as a matter of course.

Again, take the vexing matter of running away, which keeps many parents in a more or less perpetual state of anxiety from the time the toddler is big enough to wander from the immediate surveillance of his elders. Warned not to leave the yard, or not to "go in the street," or to "stay in sight of mother," the power-eager child is impelled by a twofold motive: to project himself over the horizon, in order to feel his growing power of excursion; and to assert himself against the restricting commands of adults in order to test his mettle against theirs.

Dramatic food-taking scenes exemplify peculiarly well the child struggle for power. Let the parent show by doubt on her face or in her speech whether Jamie is going to like his spinach, or let her create so much as a suggestion of an emotional scene if he does not happen to like what is placed before him, or let any pressure be applied to force him to eat, and the lines are drawn immediately for trouble. Jamie, his desire to be self-determining thwarted, refuses to eat, or demands something else, and perhaps goes into a tantrum if the parent does not capitulate. The most potent weapon he has in the melee is unquestionably his refusal to eat at all. His mother may win the day if she makes no counterattack, leaves the food be-

fore him for a reasonable time, and then removes it, giving him nothing more until the next mealtime comes around again. Unfortunately, she may adopt a program of conciliation, offering him some special boon if he will eat his lunch, "like a good boy."

"Now, I *know* you'll just *love* this nice soup!" advised Howard's mother, making a great display of placing a bowl of warm pea-soup in front of the three-year-old. "You've never had anything like it before; see, mother likes it!" and she took a large spoonful for herself.

Howard, sensing at once the possibilities in the situation, and recalling similar previous encounters, made a face and shook his head. "Don't like it!" he announced. "Don't want it! Won't eat it!"

"Oh, *yes,* you will!" exclaimed his mother, with more confidence than she felt, for she had just been reading a pamphlet on child training and children's food aversions. "If you don't, you won't get another thing until suppertime!"

Howard swelled with importance. "Don't care!" he said. "Won't eat it!"

His mother sat in silence, watching Howard trace designs with his spoon in the cloth. The only sound for fifteen minutes was Howard's gurgling and crooning, as he played the familiar role of tyrant at table. At length, true to her threat, his mother removed the bowl and cleared the board. Howard had never met quite this test before, for his mother had always capitulated within a few minutes and allowed him to have a substitute dish of his own choosing. But he stood the strain, serene in the consciousness of his power. For half the afternoon his mother watched him out of the corner of her eye. Long before suppertime, she fancied she saw dangerous signs of starvation in the young actor. She endeavored to fortify herself by recalling that the pamphlet had advised holding out on the parent's part until the tyrant yielded; but there was that deadly *pallor* on Howard's face! He needed his food! What if the pamphlet were wrong? Anyway, she was unwilling to risk the child's health—and perhaps his life—just because of a bowl of pea-soup, which after all perhaps he really *didn't* like! She was herself not overfond of it, and many people dislike it heartily. The upshot of it was that by 3:30 Howard was pleasantly ensconced again in his chair, mother across from him, beaming at him while he consumed a generous-sized slice of bread, spread thickly with butter and jam, and a sizable glass of chocolate milk. He had met the enemy, and she was his!

No conqueror ever fared better than Howard, and children like him, whose parents yield to their food whims or entreaties and grant them what they wish. In the recurring encounters with parental au-

thority, they achieve the limelight, occupying the center of the stage for many dramatic moments. Winning out shortly and unreservedly, their ego continues triumphantly forward in its conquest of further power. Fortunately, in other areas and situations, the child urge for mastery and self-regulation finds more wholesome checks. In the interplay of his personality with those of parents, grandparents, and siblings, *et al.*, there is likely to be frequent and effective curbing in various kinds of circumstances. Most of all, his associations with other children when he goes to nursery school and kindergarten will necessitate considerable revision in egoistic traits and attitudes that may have been overdeveloped during the preprimary years. Later still, in the grades, this refining and redirecting of values away from oneself and in the direction of more adequate socialization will tend to proceed *pari passu* with the general maturation of the individual. The struggle for selfish power will thus be silently transferred into a struggle for status and social acceptance. The former purpose will never be completely lost; it will, however, be ultimately merged into a somewhat more altruistic design for living.

PERTINENT QUESTIONS FOR DISCUSSION

1. Spend a morning in a nursery school, studying both the children and the program of activities.
2. Spend a morning in a kindergarten, observing individual children and noting their reactions to the materials used and the situations set up.
3. Secure from the kindergarten teacher whom you visit a record of the height and weight of each child. How do they vary from one another? How do they compare with the figures suggested in this chapter?
4. Which of the children's diseases did you personally have in childhood? Do you know the age at which you contracted each? Did they leave any aftereffects that are still discernible?
5. Secure a recent report of morbidity and mortality statistics from your local board of health, covering the preschool age. Note the incidence of both types of statistics for each life year, and for the period covered by the report.
6. Familiarize yourself with the principal immunization programs being carried on for preschool children in your community. Do you have summer roundups? What is their purpose?

7. Find out without too much pointedness or ostentation something about the sleeping habits and sleeping hours of several very young children whom you know in the neighborhood. Are you satisfied that their sleep is adequate for health and happiness?
8. List other "helping activities," besides those given in the chapter, that little children may perform in the home.
9. Have you observed a child in a temper tantrum? How was the situation handled by the adult in authority? How did the scene affect other children in the group?
10. Have you ever had any experience in helping a child to conquer a specific fear? With what results?
11. Do you know any "love-starved" parents? What conditions probably contributed to produce such infantilisms? What effects are discernible in the children?
12. Why is it that very young children become easily overtired? What precautions should parents and nursery-school teachers observe to prevent the condition in their children?
13. Present a striking case of disobedience in a young child. How was it handled by the parent? If unwisely, suggest a better way.
14. Have you had any experience with little runaways? How can the problem of running away be mitigated or controlled?
15. Present an example of a food-taking scene in which emotion was manifested by a parent or a child, or by both. What was the real issue? What was the outcome? What do you recommend?
16. List other ways than those stated in the chapter in which a young child's struggle for power asserts itself.

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