

Child Development

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CHILD DEVELOPMENT

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From Child Development, a McGraw-Hill Text-Film.

To my husband
Irland McKnight Beckman

PREFACE

Each year more and more studies of children appear in scientific journals. These studies are being made, not by child psychologists alone, but by sociologists, educators, anthropologists, social workers, and members of the medical profession. To include all or even a fraction within the two covers of one book can be done either by reporting all of them in detail or by mentioning only the high points of each.

If the former approach were used, the book would be so large that no student could be expected to cover it within a college year, let alone a semester. Furthermore, he would very likely become lost in the forest and come out so dazed that he would not know what it was all about.

If, on the other hand, the latter approach were used, the student would become familiar with the general principles of child development and the different research studies in each area. In addition, he would have ample references for further research in any area in which he had a special interest. This, it seems to the writer, is the more scholarly approach, and for that reason, it has been adopted in writing this second revision of the book which first appeared in 1942.

This is not a revision of the original text or of the second edition. It is a complete rewriting within the framework of the original text, using the major areas of the child's development as the topics for each chapter. To keep within the limits of the usual college semester of fifteen weeks, the chapter on the history of child psychology, which appeared in the original text and in the second edition, has been replaced by a chapter on social adjustments.

Because good social adjustments are so basic to mental health, not only in childhood but throughout life, it seemed justifiable to devote more space to this aspect of social development than would be possible if it were included in the chapter on social development. Furthermore, it seemed more important to the student's understanding of the child than a historical study of research in child development, and therefore has replaced it. That is the only change made, so far as chapter headings are concerned.

Within each chapter, however, there is new material combined with the important studies reported earlier. Tables have been removed to make way

for graphs, not because tables are valueless, but because graphs present the material more clearly and emphatically. A number of graphs from recent studies have been added, and some of the original ones have been retained. All the pictures which appeared in the first two editions have been replaced by those from the *Child Development* films which are correlated with this book.

Throughout, emphasis has been placed on cultural influences and the role they play in determining the pattern of the child's development. Much of this material, which has appeared since the second edition of this book was published, is now included in the different chapters where it is related to the main topic of the chapter. As the student reads, it is hoped that he will become increasingly aware of the importance of culture as a determinant of the individual's behavior.

The bibliography has been greatly expanded to cover the important earlier studies of children and as many of the newer studies as possible. It is hoped that this bibliography will prove to be especially useful to those students who are anxious to delve further into different areas of the child's development than space has permitted in this book. While not every reference reported has been quoted from directly, all have been consulted, and the material contained in them has been used in one form or other.

The author is greatly indebted to her many professional colleagues, especially those who are members of the Division on Developmental Psychology of the American Psychological Association, for their suggestions and criticisms. She is also indebted to those who have written her suggestions and criticisms, based on their classroom experience with the second edition of this book. These suggestions and criticisms have proved to be most helpful in planning the new edition. Finally, the author is greatly indebted to all who have graciously given their consent for the use of their material in this book.

ELIZABETH B. HURLOCK

TEXT-FILMS

The nine films listed below and five follow-up filmstrips correlated with *Child Development* are available singly or as a complete series. Several illustrations from the films appear in the text.

Principles of Development (17-min. motion picture with follow-up filmstrip). This film outlines the fundamentals of growth from early infancy through the period of childhood. Development follows a pattern which is continuous, orderly, progressive, and predictable. Within this pattern there is considerable correlation between types of development. For example, physical growth affects motor development. Often one type of development waits on another. If a baby concentrates on walking, he may learn no new words for months. Development goes from general to specific responses. The baby likes people in general before he prefers mother. Each child passes through each stage, and each stage has its characteristic traits. The pattern will vary for each individual depending on his development. All development is caused by maturation and learning. The interrelation of these two factors is the key to all child training. In common human skills like sitting or walking, training is of no particular help. The baby will learn when ready. Special skills are best learned when the child is ready for them. The variables which make each child different from every other one are: sex, intelligence, race, glands, nutrition, health, fresh air and sunlight, position in the family, incentive, heredity, and parental attitude. Correlated with Chaps. 1 and 5.

Heredity and Prenatal Development (21-min. motion picture with follow-up filmstrip). The development, subdivision, and eventual union of male and female sex cells is shown. First, the development of the sex cells in the male is explained. The function of the chromosomes and genes in influencing hereditary traits is shown. The development of the male sex cell from primary spermatocyte to spermatozoa or mature sex cells is followed. Next, the development of the female sex cells in the ovaries is traced. This includes the elements of the ovum, how it subdivides and, if fertilized, divides again. The chromosomes and their genes determine such traits as sex, color of hair, and other physical and mental characteristics. Training and environment will shape the development of certain of these characteristics. The fertilization of the ovum by the sperm cell is described, and then the development of the fetus is traced until delivery. The influence of environment starts in the mother's body after fertilization. The cause and develop-

ment of identical and similar twins is shown. In live photography, the first moments and days of a newborn baby are explained. Basic physical actions of the newborn baby are breathing, eating, and eliminating. The close connection between physical and emotional sensitivity of the very young child is emphasized. Correlated with Chaps. 2 and 3.

Child Care and Development (17-min. motion picture with follow-up filmstrip). It is the habits of daily physical care that ensure a child's being happy and healthy. The children of one family, ages 9 months, 3, 6, and 9 years, are observed. A proper diet is important for good health. The influence of emotions on the child's appetite is noted. Playing outdoors is beneficial. Play helps develop and coordinate both small and large muscles. Clothes should be comfortable and practical for the weather and purpose. Specific suggestions on what to look for in each article of clothing are given. Attractive clothing can give a sense of confidence to a child. Cleanliness, by washing and bathing, and good grooming are to be encouraged. Good sleeping conditions should be coupled with the development of a desirable attitude toward sleep. Throughout, the film stresses the importance of the attitudes of both parents and children in establishing good routines of daily living. Correlated with Chaps. 4, 8, and 14.

Children's Emotions (22-min. motion picture with follow-up filmstrip). The major emotions of childhood are curiosity, fear, anger, jealousy, and joy. A baby's reactions are intense because he has had little experience in meeting new situations. Early emotions are from internal causes, later emotions from external causes. Curiosity is a natural state for a baby confronted with so many new, interesting things. Curiosity is largely satisfied by touching and tasting. This curiosity should be encouraged. Fear is natural too, but should be kept from becoming habitual. Sudden, strange, and loud are the qualities of sights and sounds which cause fears in children. How the common causes of fear change from age six to age ten is shown. Later, the fears will usually disappear. Careful teaching can prevent or lessen most childhood fears and most childhood anger as well. Anger is caused by frustrating experiences. These experiences are seen in the film from the child's point of view. The best antidote for a baby's anger is diversion, understanding the baby's inability to do things for himself and the intensity of his desire to try, and allowing some initiative. Jealousy can be caused by having to share his mother's affection with others. Privileges and affection given other siblings are a common cause of this emotion. Jealousy may be allayed by a fair share of attention and affection, equal rights, an understanding of the child's needs, and consistency in discipline. Joy should be an emotion often experienced. Pleasurable experiences come from play, playmates, and family. It is the result of physical well-being from reasonable discipline and loving understanding. Correlated with Chaps. 7 and 15.

Social Development (16-min. motion picture with follow-up filmstrip). The reasons underlying the changes in social behavior at different age levels are analyzed. The way in which children play with one another has an important influence on their later happiness. At one and a half, the baby is a passive bystander in the social scene. He enjoys being alone, experiments with his surroundings, and starts to assert his independence. Obedience should not be insisted upon. At two, he enjoys parallel play, during which he likes to be with someone but playing by himself. At age three, cooperative play starts. There are no social distinctions among children yet. Quarrels are frequent but quickly pass. Three- and four-year-olds use imagination in play increasingly. Fours are active and develop increasing muscular control. Differences in play due to sex start. At five, play is more organized and competitive. Leadership becomes evident. At six, separate gangs are formed by both sexes and the influence of the group is strong. Popularity as a personality trait becomes evident at this age. All these patterns mix and overlap, but at each age level there is a definite organization to children's social behavior. As children grow older they seek out natural leaders, and with this development comes the conflict of gang loyalties versus family loyalties. While the child must meet and solve his own social problems at each age level of his growth, understanding parents can make the inevitable adjustments much easier and smoother. Correlated with Chaps. 8 and 15.

Children's Play (27 min). Play is a dynamic factor in a child's development, as well as a requirement for good health. This film points up the changing form of children's recreation, portraying play at each age level. It describes the differences in free spontaneous play, make-believe play, constructive play, collection, amusements, games, and sports. The film demonstrates the important contributions parents can and should make to give their children the best possible chance for healthy play. It emphasizes the need for play time, ample space for play both indoors and out-of-doors, proper equipment, companions, learning in play geared to the child's ability, and the health needed to enjoy play. Correlated with Chap. 10.

Children's Fantasies (21 min). To children all fantasies, useful or destructive, are very real. Because fantasies have an effect on development, understanding the reasons for fantasies is a necessity for parents and educators. This film discusses such common problems as how to stop excessive daydreaming; how Santa Claus should be presented; what to do about imaginary friends; why some children imagine that they are adopted; how to combat fear of the dark. It points up the effect of parental discipline, television, comic books, and fairy tales on a child's fantasies. Fantasy or daydreaming is seen in this film as a pastime that can be either an escape from reality or, when properly channeled, an impetus to artistic, creative living. Correlated with Chaps. 11 and 15.

Sibling Relations and Personality (22 min). In a series of case studies, this film demonstrates the importance of the kind of relationships a child has had with his brothers and sisters throughout the developmental years. This relationship is seen to be an important factor in personality shaping. The film shows personality influences on the oldest child of a large family, the middle child, the girl who has been reared to be the model child, the girl who feels that her parents would have preferred a boy. Differences in siblings are seen in the cases of the boy whose brother is more talented, the girl whose sister is prettier and more popular, the boy who feels his grandparents prefer his sister. Illness or weakness of one child can effect another in a family as it did the child whose brother is overprotected and the child whose sister was cared for at home during a long and serious illness. Knowledge and understanding of these complex influences are important aids in helping a child through childhood and adolescence. Correlated with Chaps. 14 and 15.

Sibling Rivalries and Parents (11 min). In any family one encounters a certain amount of rivalry among the brothers and sisters—rivalry for attention, esteem, and love. The film describes the reasons for this rivalry, the varied manifestations of it, and means of holding natural friction to a minimum. It answers such questions as: Should parents forbid quarrelling? Is it better to reason a child out of anger? Will training children to separate feelings from action help curb home quarrels? What can the family council do for this problem? This film shows that, with proper guidance, a family can move through the years of childhood with only a normal amount of quarrelling. Correlated with Chap. 14.

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Chapter 1

PRINCIPLES OF DEVELOPMENT

From the moment of conception until death, the individual is constantly changing. He is never static. Throughout the childhood and adolescent years, he develops into the physical and mental structure that characterizes the adult. Even then, changes do not cease. Instead, they continue, but at a slower rate, until the deterioration that characterizes senescence sets in. Thus development is a continuous process which starts even before birth. Birth is merely an incident in a long succession of changes, not the beginning.

The individual may not always be aware of the changes, both physical and psychological, which are constantly taking place. In the early years of life, when the changes are rapid in rate and pronounced in degree, attention is focused on the changes because of the constant adjustments the individual must make to them. Furthermore, these changes are welcome to the individual because they signify that he is "growing up." This contrasts markedly with the attitude of the individual toward changes in adulthood, when each change proclaims to him and to the world that he is "growing old" (Kahn and Simmons, 1940).

Meaning of Development. Development is not limited to growing larger. Instead, it consists of a progressive series of changes of an orderly, coherent type toward the goal of maturity. The term "progressive" signifies that the changes are directional, leading forward rather than backward. The terms "orderly" and "coherent" suggest that development is not of a haphazard, casual type, but rather that there is a definite relationship between each stage and the next in the developmental sequence. Each change is dependent upon what preceded it, and it, in turn, affects what will come after.

According to Gesell (1952), "Development is more than a concept. It can be observed, appraised, and to some extent even 'measured' in three major manifestations: (a) anatomic, (b) physiologic, (c) behavioral. . . . Behavior signs, however, constitute a most comprehensive index of developmental status and developmental potentials." Development results in new characteristics and new abilities on the part of the individual. It consists of a transition from lower to higher stages of activity or function. While there is some development at every stage in the life span of the individual, more

development occurs in the early years of life than after maturity has been attained.

Studies of Development. Two methods have been used to trace the course of human development. The first consists of measuring different large groups of children at different age levels to get norms, or standards, of development for these ages. The second method of studying development consists of the reexamination of the same individuals at certain intervals of time throughout the childhood and adolescent years. While this method unquestionably gives a more accurate picture of the typical child's development, it is not always practical to use it. From studies made by both methods, we have today norms of the typical pattern of development from the moment of conception until maturity has been attained.

There are three important advantages to be derived from knowing what is the normal development of the child. It enables one to know what to expect of a child at every age and to know, in a general way, at what age different forms of behavior will emerge into more mature forms. Because the pattern of development is approximately the same for all children, it is possible to judge each child in terms of the norm for his age, thus showing if his behavior is typical or atypical for his age. And, finally, since all development requires guidance, knowledge of the normal pattern of development enables those in charge of the child to guide his development into desired channels.

TYPES OF CHANGE IN DEVELOPMENT

Development consists of changes, but not all changes are of the same sort. Nor do they influence the process of growing up in the same way. The changes which occur in development may be divided roughly into four major classes, which are as follows.

1. Changes in Size. Changes of this type are especially obvious in physical growth, though they can be observed readily in mental growth if a standard test of intelligence is used. Each year, as the child grows older, his height, weight, and circumference measurements increase unless some abnormal condition interferes with normal growth. Likewise, the different internal organs and structures, such as the heart, lungs, intestines, and stomach grow larger to take care of the increasing needs of the body. Mental development shows similar changes in magnitude. The child's vocabulary increases annually; his ability to reason, remember, perceive, and use creative imagination, all normally expand during the growth years.

2. Changes in Proportion. As may be seen from the accompanying diagram (Fig. 1), physical development is not limited to changes in size. The child is not merely a "miniature adult," as was formerly believed, but his whole body shows proportions different from those of the adult. This is especially evident when the baby's body is magnified to adult size. It is not until the

child reaches puberty, around the age of thirteen years, that the proportions begin to approximate those of the adult body.

Changes in proportion are also apparent in mental development. In early childhood, imagination is predominantly fantastic, with little reference to reality. Gradually, as the child grows older, the fantastic element gives way to a very realistic, matter-of-fact, common-sense sort of imagination, so harnessed and controlled as to be useful in planning and in all forms of creative work. A change also occurs in the interests of the child. At first, his interests are concentrated on himself and his toys. Gradually, his interest shifts to other children of his acquaintance and the activities of the neighborhood gang. Then, in adolescence, the interests are focused on members of the opposite sex, clothes, and all that is closely bound up with courtship.

3. Disappearance of Old Features. A third important type of change which occurs in the development of the individual consists of the disappearance of certain features. Among the physical features, the most important ones to disappear gradually as the child grows older are the thymus gland, often called the "gland of babyhood," located in the chest; the pineal gland at the base of the brain; the Babinski and Darwinian reflexes; "baby hair"; and the first set of teeth, the "baby teeth." Among the mental traits which gradually outlive their usefulness and then disappear are babbling and all other forms of baby speech; childish impulses to act before thinking; babyish forms of locomotion, such as creeping and crawling; and sensory keenness, especially in regard to taste and smell.

4. Acquisition of New Features. In addition to the discarding of features which have outlived their usefulness, a fourth type of developmental change is to be observed in the acquisition of new physical and mental features. Some of these are acquired through learning, but many of them result from the maturing or unfolding of native traits not fully developed at birth. Among the physical features, the most important ones which are acquired during the growth period are first and second teeth and primary and secondary sex characteristics, the latter making their appearance during the early months of adolescence. Among the mental traits acquired by the individual are curiosity, especially about sex matters, the sex urge, knowledge, moral standards, religious beliefs, different forms of language, and all types of neurotic tendencies.

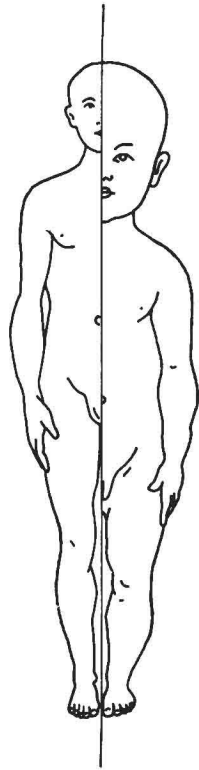


Fig. 1. The bodily proportions of the newborn infant and adult. (After Stratz, from K. Bühler, *Mental development of the child*, Harcourt, Brace, 1930. Used by permission.)