

Handwritten title "human development" repeated five times in various styles and colors (red, multi-colored, black, blue, red, and brown).

**DIANE E. PAPALIA  
SALLY WENDKOS OLDS**

**SECOND EDITION**

# Human Development

**SECOND EDITION**

**DIANE E. PAPALIA**

University of Wisconsin—Madison

**SALLY WENDKOS OLDS**

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## **HUMAN DEVELOPMENT**

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# HUMAN DEVELOPMENT

**To our husbands,  
Jonathan L. Finlay  
and  
David Mark Olds,  
our loved and loving partners  
in growth and development**

In the preface to the first edition of *Human Development* we spoke of change as a principle that governs all our lives. For as we said then, through every moment of every day, we change, we grow, we develop. The changes in this new edition of this book represent, we feel, growth and development in our thinking, so that we can more effectively present the story of human development from the moment of conception until that moment at the other end of the life cycle when death ends the continuing process.

The goal of this second edition is the same as the first: to emphasize the continuity of development throughout the life span and to understand the influences upon us from our genes, our families, the world we live in. We are still looking at the findings of scientific research and the theories of learned people. We are still applying these to our understanding of ourselves. And we are still asking the same basic questions: What influences have made us the way we are today? What factors are likely to bend us in the future? How much control do we have over our lives? How are we like other people? How are we different? What is normal? What is cause for concern?

We are also asking some new questions and coming up with some new answers. This is partly in response to important new research and important new theories. It is also responsive to those teachers and students who have shared with us their experiences in using the first edition. While we are delighted that almost all those we have heard from have found the book helpful, there is virtually nothing in this world that cannot be improved upon. So we have eagerly sought suggestions for reorganizing or re-presenting material in a way that will make it even more accessible. We want to invite you as the users of this second edition to communicate to us any such suggestions that you have, in anticipation of the continuing development of this book.

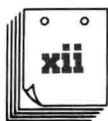
## CHANGES IN THIS EDITION

You will see an expansion of our coverage of contemporary patterns of living, of working, of rearing children. You will find new discussions of friendship and its importance at every age level throughout life. You will find a greatly expanded analysis of current theories and research findings to help evaluate the different points of view presented here.

You will find three additional chapters in this edition. They allow us to add new material on infant intellectual development; on many aspects of life during middle age, including the much talked about midlife crisis; and on death and dying. This last topic is so rich in thought-provoking material—the ethical dilemmas revolving around the end of life, the new emphasis on dying with dignity, the changing attitudes toward death as people move through the life cycle—that we felt it was imperative to devote an entire chapter to it. This expanded coverage fits in with our firm belief that we continue to develop during our final days on earth. Throughout the book you will find other instances of new topics and new treatments of other topics.

One special feature of this edition, which we think you will enjoy reading as much as we enjoyed seeking them, are the diary excerpts scattered throughout the text. Finding these excerpts from the spoken and written words of people reflecting on their own lives and that of their children took some concerted detective work. When we saw how vividly they portray moments ranging from the highly dramatic to the day to day, we felt that they were worth digging for. We hope you do too.

With this new edition, then, we hope that you will understand yourself and those around



you even better. We hope you will be informed and intrigued and inspired by the constantly changing process we are all part of: human development.

### SUPPLEMENTARY AIDS

A *Study Guide* is available to aid the student in study and review. The guide contains chapter overviews, integrators, objectives, self-test questions, practice exercises, and vignettes.

A *Test File* containing in excess of 1500 items categorized both by type of question (factual or application) and by major topic being tested is available to all instructors who adopt *Human Development*. Some items have been validated.

An *Instructor's Manual* is also available to all instructors who adopt *Human Development*. The manual contains chapter overviews, key terms, objectives, topics for expansion and demonstration, backup readings, general resources, and a film guide.

### ACKNOWLEDGMENTS

We especially wish to acknowledge those who reviewed the published first edition and the manuscript drafts of the second edition, whose evaluations and suggestions helped greatly in the preparation of this new edition. They are Harry J. Berman, Sangamon State University; Doris Capps, Atlantic Christian College; Don C. Charles, Iowa State University; Karen Dinsmore, University of Nebraska at Lincoln; Kenneth Gamble, Gannon College; Anne Godfrey, Case Western Reserve University; Rita Heberer, Belleville Area College; Kathleen Hulbert, University of Lowell; Chadwick Karr, Portland State University; Nancy King, Iowa Central Community College; Eleanor Levine, California State University at Hayward; Rick Mitchell, Hartford Community Col-

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We owe a very special word of gratitude to Nancy Gordon, whose charming and loving record of Elizabeth's day-by-day development inspired us to incorporate such personal reflections throughout the text. Joan Gage's accounts of Christy's growth fit in beautifully with this concept.

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Diane E. Papalia  
Sally Wendkos Olds

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# *Introduction*



## IN THIS CHAPTER YOU WILL LEARN ABOUT

Why the study of human development is important, and how it has changed throughout history

The main types, periods, principles, models, and theories of human development

How heredity and environment interact to affect human development, and how we can study their relative effects

The methods available for studying people—and some ethical considerations that must be applied in using them

## CHAPTER OVERVIEW

What is Development and Why Should We Study It?

The History of the Study of Human Development

*The Study of Children | The Study of Adults | Life Span Studies*

Various Aspects of Development

Periods of the Human Life Span

Developmental Principles

*Individual Differences in Development | Critical Periods in Development | Development is Orderly, Not Random | Different Types of Development Are Important at Different Times*



## INTRODUCTION

# 1

## ISSUES AND THEORIES OF HUMAN DEVELOPMENT

Models and Theories of Human Development

*The Mechanistic Perspective | The Organismic Perspective | The Psychoanalytic Perspective | The Humanistic Perspective*

The Influences of Heredity and Environment

*Nature versus Nurture | How Heredity and Environment Interact | Ways to Study the Relative Effects of Heredity and Environment | Characteristics Influenced by Heredity and Environment*

Methods for Studying People

*Naturalistic Studies | Clinical Studies | Experimental Studies | Methods of Data Collection*

Ethical Considerations in Studying People  
*Some Basic Ethical Issues*

A Word to Students



What made you the kind of child you were—and the kind of adult you are now? What made your parents, your friends, your teachers, the leaders of governments around the world the way they are? What factors will influence how your children will turn out? What influences one person to become a mass murderer, and another to become a humanitarian? What made you turn out differently from your next-door neighbors—and even from your own brothers and sisters? The answers to these questions are what we hope to find by studying human development throughout the life span.

By examining how people develop, from the moment of conception throughout old age, we learn more about ourselves and about our fellow inhabitants on this planet. Only by knowing who we are and how we became this way can we hope to create a better world. Only by learning how people respond to influences around them can we meet our own and others' needs, so that more people will be better equipped to fulfill their individual potential and to help society fulfill its potential.

## **WHAT IS DEVELOPMENT AND WHY SHOULD WE STUDY IT?**

The study of *human development* focuses on the *quantitative* and *qualitative* ways people change over time. *Quantitative change* is fairly straightforward and relatively easy to measure. A person's growth in height and weight is a quantitative change. So are the expansion of vocabulary, the increase in physical skills, the number of relationships with other people, and so forth. The study of *qualitative change* is more complex, involving "leaps" in functioning—those changes in kind that distinguish a talking child from a nonverbal baby or a self-absorbed adolescent from a mature

adult. These changes trace the growth of intelligence, creativity, sociability, and morality. But even these leaps result from a series of small steps. No one wakes up on his or her twenty-first birthday suddenly thinking and acting vastly differently from the day before. Quantitatively and qualitatively, human development is a continuous, irreversible, and complex process.

Furthermore, development does not stop at adolescence or young adulthood. It continues throughout life, continually influenced by characteristics we were born with and by those we acquire through our experiences. As we shall see, even very old people continue to develop and often experience personality growth. We will even look at the experience of dying itself as a final attempt to resolve one's identity crisis and come to terms with oneself—in short, to develop.

The modern science of human development is concerned most of all with behavioral changes—things we can see. We emphasize aspects of change that are readily observable in an effort to apply rigorous scientific criteria to our study of the developing individual. Thus, we measure and chart people's physical growth. We follow their progress in emotional expression. We study the development of language from an infant's babbling to more mature, grammatically correct speech.

The field of human development has developed itself, as a scientific discipline. Originally, its focus was on the recording of observable behavior, from which age norms for growth and development could be derived. Today, developmentalists try to explain *why* certain behaviors occur. In keeping with the tradition of scientific investigation, the next step is the prediction of behavior—a challenging and complex task.

What are the practical implications in the study of human development? There are many. By learning about the usual course of development, we can look at the different factors in an individual's life and attempt to *predict* future behavior. If our predictions hint at problems in the future, we can often try to



modify development, by offering some type of training or therapy.

For example, if Susie seems backward in development, her parents may either be reassured that she is normal, or they may be advised how to help her overcome her deficiencies. If Billy is a perpetual truant, his parents may receive sound psychological advice that enables them to divert him from a path that looks certain to lead to trouble. If educators understand how children of different ages learn best, they can plan better classroom programs.

Understanding adult development and the predictable crises of adulthood helps professionals and lay persons alike to be prepared for life's situations: the mother returning to the world of work when her youngest child marches off to kindergarten, the 50-year-old man who realizes he will never be president, the person about to retire, the widow or widower, the dying patient.

This book is about all people, and it is also about each person. In our study of development we are interested in patterns that govern the development of all individuals of the species *Homo sapiens*. But since each member of the species is unique, we want to know what factors make one person turn out differently from another.

## THE HISTORY OF THE STUDY OF HUMAN DEVELOPMENT

The study of human development focused first on children, then on adults, and finally on the entire life span.

### THE STUDY OF CHILDREN

How did child development pass from something that just happened (almost unnoticed by anyone except children's mothers) into an academic discipline that grants Ph.D.s, spends millions of dollars on research projects, and affects the rearing of billions of children? Child development is a study that examines how the whole child changes over

time. It is concerned with children's physical, intellectual, emotional, and social growth. In the history of science, it is a child itself.

People have long held various ideas about what children are like and how they should be raised to cause the least amount of trouble to their parents and to society, turning out to be decent, contributing adults. But childhood as we know it and are interested in it is a very recent concept. For centuries children were considered as nothing more than smaller, weaker, dumber versions of adults (Looft, 1971).

Adults did not see children as being qualitatively different from themselves, or as having any special needs, or as making any significant contributions to their own development (Aries, 1962). Even artists seemed unable to see that children *looked* different from adults with different proportions and different facial features. Except for the ancient Greeks, early painters and sculptors portrayed children as shrunken adults. Not until the thirteenth century did artists again show children who actually looked like children. And not until the seventeenth century did the concept of childhood itself become exalted in art as well as in life. Around this time, parents began to notice the "sweet, simple, and amusing" nature of children. They began to dress them differently, instead of just cutting adult-styled garments in small sizes, and they confessed to the joys they received from playing with their children.

The first books of advice for parents had begun to appear during the sixteenth century, most of them written by physicians. These books were distinguished by their almost complete lack of reliance on scientific truth and their almost total dependency on the biases, prejudices, and pet theories of the individual authors, who dispensed such advice to mothers as: not to nurse their babies

Until the seventeenth century, children were viewed as miniature adults. (The Bettmann Archive, Inc.)



right after feeling anger, lest their milk prove fatal; to begin toilet training their infants at the age of three weeks; and to bind their babies' arms for several months after birth to prevent thumbsucking (Ryerson, 1961).

During the eighteenth century, a combination of scientific, religious, economic, and social trends formed the perfect soil for the birth of the new study of child development. Scientists had unraveled the basic mysteries of conception and were now embroiled in the "nature versus nurture" argument about the relative importance of heredity and environment, which we'll discuss later in this chapter. The discovery of germs had opened up a whole new vista to the populace, who now realized that they could stave off the tides of plagues and fevers which had been snatching their children from them at tender ages. Parents could now dare to love and treasure their children.

The rise of Protestantism emphasized self-reliance, independence, and the respon-

sibility of each individual. Adults began to feel more responsible for the way children turned out, instead of just accepting misfortune or misbehavior as something brought by fate. With the Industrial Revolution, the family changed from an extended, clanlike group to the nuclear family. In the nuclear family, children are more visible, their individual personalities show up more, and their parents' concentration upon them is more intense.

Another current in this stream was the tendency to provide more education for children. They now had to be kept busy and occupied in school for longer periods of time, and so their teachers needed more understanding of what children were all about. The spirit of democracy was filtering into the household, as parents began to feel uncomfortable with the old autocratic attitudes and sought to bring children up better by understanding them better. Finally, the new science of psychology, the study of human behavior, led people to feel they could better under-





stand themselves by learning what made some children turn out differently from others.

By the nineteenth century, all these currents had come together, and people of science were devising all manner of ways to study children. (See "Methods for Studying People," later in this chapter.)

Historically, children were people who one day became adults. The transitional period of adolescence was not considered as a stage in human development until the twentieth century. Instead, children went through puberty and immediately entered some sort of apprenticeship in the adult world. In 1904, G. Stanley Hall, a pioneer in the child study movement and the first psychologist to formulate a theory of adolescence, published his two-volume work, *Adolescence*. While the book was very popular, it had very little scientific basis. Instead, it served as a forum for Hall's theories, which did stimulate thinking about this period of life. Hall, for example, believed that it was not until adolescence that one could be molded by society.

## THE STUDY OF ADULTS

The nineteenth century also ushered in an interest in studying people at the other end of the life span, old age. The history of the study of aging is usually said to begin with the publication in 1835 of a book by Quetelet, a French mathematician with an interest in sociology and psychology, who was particularly interested in the relationship of age to creativity. Influenced by Quetelet, Sir Francis Galton, an English scientist who was a cousin of Charles Darwin, began to investigate individual differences in relation to age and in 1883 published his book, *Inquiries into Human Faculty and Its Development*.

Almost half a century later in the United States, G. Stanley Hall achieved another first. He is generally credited with pioneering the study of the psychology of aging in this country. In 1922 when Hall himself was 78, he published his book, *Senescence: The Last Half of Life*. During these years right after World War I, the scientific study of old people

began. The first major research unit devoted to the study of aging was opened at Stanford University in 1928.

It was not for another generation, though, after World War II, that the study of aging really blossomed. By 1946, a large-scale research unit had been established by the federal government's National Institutes of Health, and specialized organizations and journals were promoting and reporting the newest findings. The initial emphasis was primarily on intelligence, reaction time, ability, and achievement in old age. Later researchers delved into the emotional aspects of growing old.

During most of this time, however, practically no one was showing any appreciation for the continuity of the entire human life span. While researchers were coming up with fascinating blocks of information about children and about the elderly, they were ignoring the vital adult years between adolescence and old age.

## LIFE SPAN STUDIES

Today, a growing group of psychologists recognize that human development is an ongoing process that continues throughout life. Each portion of a person's life span is influenced by earlier years, and each affects the years that follow. As these researchers probe the changes that a human being undergoes "from womb to tomb," they describe and explain various age-related behavioral changes.

Life span studies originally grew out of programs that had been designed to follow selected groups of children over a period of years. As these children grew up, the researchers who had been studying them were interested in following them into adulthood. Life span development as a subject for research has since expanded backward in time