

A photograph of a young child with dark hair, wearing a red sweater, reaching up with both hands towards a cluster of large, yellow and green autumn leaves. The background is dark, making the child and the leaves stand out. The child's face is partially visible, looking up at the leaves.

# CHILDREN

FIFTH EDITION

John W.  
SANTROCK

# CHILDREN

FIFTH EDITION

John W. Santrock  
University of Texas at Dallas



Boston, Massachusetts Burr Ridge, Illinois Dubuque, Iowa  
Madison, Wisconsin New York, New York San Francisco, California St. Louis, Missouri

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# PREFACE

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 hildren are our nation's most important resource. They are the future of our society. Because they are such an important resource and the future of our society, we need to show a deep concern for helping all children reach their full potential. We can accomplish this in a number of ways. For one, by taking a course like this one on child development you can increase your knowledge of how children learn and develop. For another, we can develop a deep compassion for helping children reach their full potential. The fifth edition of *Children* continues to emphasize practical applications to the real worlds of children and ways to improve children's lives.

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## FIVE IMPORTANT THEMES IN CHILDREN'S LIVES AND IN CHILDREN, FIFTH EDITION

Five important themes continue to be woven throughout the fifth edition of *Children*: (1) health and well-being, (2) families and parenting, (3) education, (4) culture and ethnicity, and (5) gender. I believe that these five themes hold important keys to improving the lives of children and helping them reach their full potential.

In addition to being discussed at various points within chapters, these five themes appear at the end of each chapter in a new section called "Improving the Lives of Children." Each of the themes—health and well-being, families and parenting, education, culture and ethnicity, and gender—is connected to the chapter's content. Many of the discussions of these important topics are new to this edition of the book.

The five themes also are revisited in an Epilogue at the end of the book, which recaps the importance of health and well-being, families and parenting, education, culture and ethnicity, and gender in children's lives.

A special effort was made to provide very up-to-date coverage of these five themes. In the fourth edition of *Children*, five experts served as consultants, providing advice about these topics: Jennifer Cousins (health and well-being), Phyllis Bernstein (families and parenting), Greta Fein (education), Algea Harrison (culture and ethnicity), and Michelle Paludi (gender).

To expand the inclusion of up-to-date material on these topics, the following individuals served as consultants for the fifth edition of *Children*: Tiffany Field (health and well-being), Diana Baumrind (families and parenting), Rosalind Charlesworth (education), Sandra Graham (culture and ethnicity), and Florence Denmark (gender). These experts truly made the fifth edition of *Children* an improved portrait of what we know about children's development in these important domains.

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## CRITICAL THINKING

The discussion of critical thinking was expanded in the fifth edition of *Children*. In each chapter, several boxes on critical thinking stimulate students to think critically about topics related to the chapter's contents. Most of the critical-thinking discussions are new in *Children's* fifth edition. One of the nation's leading experts on critical thinking—Jane Halonen—served as a consultant for the incorporation of critical thinking into this edition.

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## PRACTICAL KNOWLEDGE ABOUT CHILDREN

The well-received feature "Practical Knowledge About Children," which was introduced in the book's fourth edition, has been retained in the fifth edition. These book reviews are now presented at the end of each chapter. The "Practical Knowledge About Children" section reviews recommended books, many of which provide valuable information about improving the lives of children.

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## SCIENCE AND RESEARCH

The fifth edition of *Children* not only provides extensive information about applications to the real world of children but also is a thorough, sound, up-to-date presentation of the science of child development. Both classic and leading-edge research are highlighted.

As part of the citation changes in the fifth edition of *Children*, I did a considerable amount of "reference housecleaning." That is, I very carefully added appropriate new

references but also removed a number of older references that were no longer necessary to include. The result is far fewer total references in the fifth edition of the book, but far more recent references—more than 350 of the citations now come from 1995, 1996, 1997, or in-press sources.

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## WRITING

I continue to strive to make *Children* more student-friendly. I have explored many alternative ways of presenting ideas and have asked large numbers of students to give me feedback about which strategies are the most effective. Covering the entire journey of children's development in one book is a difficult task. To incorporate the core knowledge of the field of child development, present the latest advances on the scientific front, and describe practical applications in each period of development requires careful consideration of what to include (as well as what to exclude), and how to include it.

This challenging task requires clear writing and a very usable pedagogical system. In constructing this edition of *Children*, I rewrote virtually every section—adding, subtracting, integrating, and simplifying. *Children* also has a carefully designed pedagogical system that will benefit student learning. The key features of the learning system will be presented shortly in a visual preface for students, "How the Learning System Works."

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## MOTIVATION

Students learn best when they are highly motivated and interested in what they are reading and experiencing. It is important to be motivated right from the start, so each chapter of *Children* begins with a high-interest piece called "Images of Children" that should motivate students to read the chapter. The increased applications to the real lives of children throughout the book should also motivate students, because they will increasingly be able to perceive how the material relates to their roles as parents, educators, and caring adults who work with children to help them reach their potential. I also have tried to communicate the discoveries about children's development with energy and enthusiasm and have provided lively examples when I introduce a new concept. I personally chose virtually every photograph in *Children* because I believe the combination of the right photograph with the right words improves student motivation and learning. I also participated extensively in the book's design and created a number of visual figures that combine photographs with figure information or summaries of concepts; I believe these also enhance student motivation and learning.

In summary, I have tried to convey the complex and exciting story of how children develop and how we have in our hands the ability to help them reach their full potential in a manner that is both informative and enjoyable. I will have reached the goals I set for the fifth edition of *Children*

if I have engaged students with the material, they learn effectively from it, and they feel they have more wisdom about improving children's lives.

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## REDESIGN OF CHAPTERS FOR A CLEARER, LESS-CLUTTERED LOOK

An important change in the fifth edition of *Children* is a clearer, less-cluttered look to the chapters. By moving the previously boxed features on culture and ethnicity, education, and parenting to the end of the chapter, as well as also moving the "Practical Knowledge About Children" discussions, to the end of the chapter, the chapter content is considerably more streamlined and clear.

In addition, the popular feature *Resources for Improving the Lives of Children* has been expanded and is now offered as an ancillary for *Children*, Fifth Edition. The *Resources* feature consists of phone numbers, addresses, books, and brochures that can be used to improve the lives of children.

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## B&B COURSEKITS™

B&B CourseKits™ are course-specific collections of for sale educational materials custom packaged for maximum convenience and value. CourseKits offer you the flexibility of customizing and combining Brown & Benchmark course materials (B&B CourseKits®, Annual Editions®, Taking Sides®, etc.) with your own or other material. Each CourseKit contains two or more instructor-selected items conveniently packaged and priced for your students. For more information on B&B CourseKits™, please contact your local Brown & Benchmark Sales Representative.

### Annual Editions®

Magazines, newspapers, and journals of the public press play an important role in providing current, first-rate, relevant educational information. If in your child development course you are interested in exposing your students to a wide range of current, well-balanced, carefully selected articles from some of the most important magazines, newspapers, and journals published today, you may want to consider *Annual Editions: Child Growth and Development*, published by the Dushkin Publishing Group, a unit of Brown & Benchmark Publishers. *Annual Editions: Child Growth and Development* is a collection of over 40 articles on topics related to the latest research and thinking in child development. *Annual Editions* is updated on an annual basis, and there are a number of features designed to make it particularly useful, including a topic guide, an annotated table of contents, and unit overviews. Consult your Brown & Benchmark Sales Representative for more details.

## Taking Sides®

Are you interested in generating classroom discussion? In finding a tool to more fully involve your students in their experience of your course? Would you like to encourage your students to become more active learners? To develop their critical thinking skills? Lastly, are you yourself intrigued by current controversies related to issues in childhood and development? If so, you should be aware of a new publication from The Dushkin Publishing Group, a unit of Brown & Benchmark Publishers: *Taking Sides: Clashing Views on Controversial Issues in Childhood and Society*, edited by Professors Robert L. DelCampo and Diane S. DelCampo of New Mexico State University. *Taking Sides*, a reader that takes a pro/con approach to issues, is designed to introduce students to controversies in childhood and development. The readings, which represent the arguments of leading child behaviorists and social commentators, reflect a variety of viewpoints and have been selected for their liveliness, currency, and substance. Consult your Brown & Benchmark Sales Representative for more details.

## CourseMedia™

As educational needs and methods change, Brown & Benchmark adds innovative, contemporary student materials for the computer, audio, and video devices of the 1990s and beyond. These include:

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- Creating custom covers

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## ANCILLARY MATERIALS FOR THE INSTRUCTOR

The publisher and ancillary team have worked together to produce an outstanding integrated teaching package to accompany *Children*. The authors of the ancillaries are all experienced teachers in the child development course. The ancillaries have been designed to make it as easy as possible to customize the entire package to meet the unique needs of professors and students.

### Instructor's Course Planner

The key to this teaching package was created by Allen H. Keniston and Blaine F. Peden of the University of Wisconsin–Eau Claire. Allen and Blaine are both award-winning teachers and active members of The Council of Teachers of Undergraduate Psychology. This flexible planner provides a variety of useful tools to enhance your teaching efforts, reduce your workload, and increase your enjoyment. For each chapter of the text, the planner provides an outline and overview. The planner also contains lecture suggestions, classroom activities, discussion questions, integrative essay questions, a film list, and a transparency guide. It contains an abundance of handouts and exercises for stimulating classroom discussion and encouraging critical thinking.

The **Test Item File** was constructed by Janet A. Simons. Simons is an experienced author of test item files and psychology texts. This comprehensive test bank includes over 1,800 multiple-choice test questions that are keyed to the text and learning objectives. Each item is designated as factual, conceptual, or applied as defined by the first three levels of Benjamin Bloom's *Taxonomy of Educational Objectives* (1956).

The questions in the Test Item File are available on **MicroTest III**, a powerful but easy-to-use test-generating program by Chariot Software Group. MicroTest is available for DOS, Windows, and Macintosh. With MicroTest, you can easily select questions from the Test Item File and print a test and an answer key. You can customize questions, headings, and instructions, you can add or import questions of your own, and you can print your test in a choice of fonts if your printer supports them. You can obtain a copy of MicroTest III by contacting your local Brown & Benchmark Sales Representative or by phoning Educational Resources at 1-800-338-5371.

The **Student Study Guide** was also created by Blaine F. Peden and Allen H. Keniston of the University of Wisconsin–Eau Claire. For each chapter of the text, the student is provided with learning objectives and key terms, a guided review, and two self-tests. One covers key terms and key persons, and the other entails multiple choice questions (with answers provided for self-testing). The study guide includes the section "How to Be a Better Student" to help students study more effectively and efficiently.

A **Student Study Tape** is a new supplement being offered with this edition. To further reinforce student learning, this valuable audio tape features key term recitation and a summary of the main topics presented in the text.

**Guide to Life-Span Development for Future Nurses** and **Guide to Life-Span Development for Future Educators** are new course supplements that help students apply the concepts of human development to the education and nursing professions. Each supplement contains information, exercises, and sample tests designed to help students prepare for certification and understand human development from these professional perspectives.

The **Brown & Benchmark Human Development Transparency/Slide Set**, Second Edition, consists of 141 newly developed acetate transparencies or slides. These full-color transparencies, selected by author John Santrock and Janet Simons, include graphics from the text and various outside sources and were expressly designed to provide comprehensive coverage of all major topic areas generally covered in life-span development. A comprehensive annotated guide provides a brief description for each transparency and helpful suggestions for use in the classroom.

The **Human Development Electronic Image Bank CD-ROM** contains more than 100 useful images and a computer projection system divided into two separate programs: The Interactive Slide Show and the Slide Show Editor. The Interactive Slide Show allows you to play a preset slide show containing selected images from Times Mirror Higher Education Group textbooks. The Slide Show Editor allows you to customize and create your own slide show. You can add slides anywhere you like in the presentation and incorporate any audio or visual files you'd like, as well as create title screens. You also may use the CD-ROM images with your own presentation software (PowerPoint, etc.). (Images are available in both PICT and BMP formats. Macintosh and Windows compatible.)

A large selection of **Videotapes**, including *Seasons of Life*, is also available to instructors, based upon the number of textbooks ordered from Brown & Benchmark Publishers by your bookstore.

The **AIDS Booklet**, Third Edition, by Frank D. Cox of Santa Barbara City College, is a brief but comprehensive introduction to the Acquired Immune Deficiency Syndrome which is caused by HIV (Human Immunodeficiency Virus) and related viruses.

The **Critical Thinker**, written by Richard Mayer and Fiona Goodchild of the University of California, Santa Barbara, uses excerpts from introductory psychology textbooks to show students how to think critically about psychology. Either this or the AIDS booklet are available at no charge to first-year adopters of our textbook or can be purchased separately.

A **Customized Transparency Program** is available to adopters for *Children*, Fifth Edition, based on the number of textbooks ordered. Consult your Brown & Benchmark representative for ordering policies.

The **Human Development Interactive Videodisc Set** produced by Roger Ray of Rollins College, brings life-span development to life with instant access to over 30 brief video segments from the highly acclaimed *Seasons of Life* series. The 2-disc set can be used alone for selecting and sequencing excerpts, or in tandem with a Macintosh computer to add interactive commentary capability, as well as extra video and search options. Consult your Brown & Benchmark Sales Representative for details.

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I have benefited extensively from the ideas and insights of many colleagues. I would like to thank the following individuals for their feedback on earlier editions of *Children*.

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# CHILDREN'S CONSULTING ADVISORS



Five main content themes are woven throughout *Children*, fifth edition:

- Health and well-being
- Families and parenting
- Education
- Culture and ethnicity
- Gender

To improve the coverage of these important themes of children's development, five consulting advisors provided valuable advice and suggestions. Each of these individuals is an expert in her respective area. Their recommendations and insights have considerably improved the coverage of health and well-being, families and parenting, education, culture and ethnicity, and gender.



**Dr. Tiffany M. Field** is director of the Touch Research Institute and the Touch Research Institute Nursery School of the

University of Miami School of Medicine, and Professor in the Department of Psychology, Pediatrics, and Psychiatry. She is a recipient of the American Psychological Association Distinguished Young Scientist Award and has had a research scientist award from NIMH for her research career. She is the author of *Infancy, Touch, and Advances in Touch Research*; the editor of a series of volumes entitled *High-Risk Infants and Stress and Coping*; and the author of over 200 journal papers. The mission of the Touch Research Institute is to conduct

multidisciplinary and multiuniversity studies on touch as a basic sense, touch as communication, and the use of touch therapies in wellness and medical programs. Among the promising findings is that touch therapy enhances growth in premature infants, reduces stress (cortisol and norepinephrine levels) in child psychiatric patients, enhances alertness (decreases alpha waves, and increases math accuracy) in adults, and increases natural killer-cell activity in HIV men.

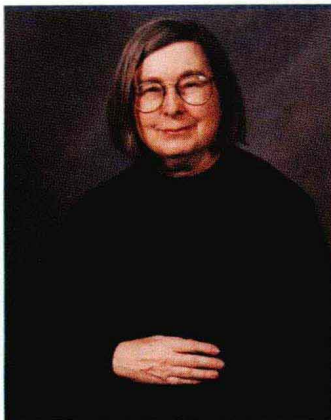


**Dr. Diana Baumrind** is a research scientist at the Institute of Human Development at the University of

California in Berkeley (UCB). She received her Doctor of Philosophy in clinical, developmental, and social psychology at UCB, where for the last 30 years she has conducted her well-known longitudinal study, *The Family Socialization and Developmental Competence Project*. Dr. Baumrind is the leading authority on how contrasting patterns of parental authority affect the development of character and competence in children and adolescents. As a consequence of the author's seminal longitudinal research on the contrasting impact on children's character and competence of authoritative, authoritarian, permissive, and unengaged

parenting styles, it is generally acknowledged that the authoritative pattern, which balances parental responsiveness (warmth, reciprocity, clear communication and attachment) with demandingness (firm control, monitoring, maturity demands), most successfully promotes the welfare and social-emotional adjustment of middle-class children. In addition to her seminal work on child-rearing, Dr. Baumrind is known for her work on ethics, and more recently on social policy applications of scholarly work on the family.





**Dr. Rosalind Charlesworth** is a leading expert in the fields of early education and child development. Dr. Charlesworth is a Professor of Child and Family Studies in the College of Education at Weber State University in Ogden, Utah. She holds a bachelor's degree in psychology from Stanford University, a master's degree in child psychology from the University of

Iowa, and a Ph.D. in curriculum and instruction from the University of Toledo. Prior to receiving her doctorate, she was a laboratory and Title I preschool teacher and a primary learning disabilities teacher. Since receiving her doctorate, she has been an Assistant Professor in Educational Psychology and Home Economics at Bowling Green State University (Ohio) and a Professor at Louisiana State University; she joined the faculty at Weber State in the fall of 1993. Her major focus is connecting child development knowledge to educational practices with young children. She is an advocate for developmentally appropriate instructional practices.

Dr. Charlesworth's main research interests center on the effects of developmentally appropriate and inappropriate practice on young children's stress behaviors, academic success, and classroom social behavior, and kindergarten and primary teachers' beliefs and practices relative to developmentally appropriate and inappropriate teaching

strategies. With Dr. Diane Burts of Louisiana State University and Dr. Craig Hart of Brigham Young University she has been collaborating on a longitudinal study of the long-term effects on children of developmentally appropriate and inappropriate kindergarten experiences. Another current interest is an in-depth self-study of her own teaching.

Dr. Charlesworth is the author of *Understanding Child Development: For Adults Who Work with Young Children* and coauthor with Karen K. Lind of *Math and Science for Young Children*. She has authored and coauthored numerous articles and chapters; the most recent focus on various aspects of the collaborative research on developmentally appropriate/inappropriate practice and on the relationship of early childhood mathematics instruction to developmentally appropriate practice. She is currently an editorial consultant for *Early Childhood Research Quarterly*.



**Dr. Sandra Graham** is a Professor in the Department of Education at the

University of California—Los Angeles. She is also the Chair of the Interdepartmental Master's Program in African American Studies and the Associate Director of the Center for African American Studies at UCLA. She received her Ph.D. from UCLA and holds degrees in history from Columbia University and Barnard College.

Among her research interests are cognitive approaches to motivation, the development of attributional processes, motivation in African Americans, and peer-directed aggression. She has received grants from the National Science

Foundation and the Haynes Foundation to continue her research on childhood aggression and interventions to increase social skills and academic motivation in incarcerated adolescents. Professor Graham serves on the boards of many academic journals and professional associations, and is the author of many articles and book chapters. She is also the editor, with V. S. Folkes, of *Attribution Theory: Applications to Achievement, Mental Health, and Interpersonal Conflict* (Lawrence Erlbaum, 1990).



**Dr. Florence L. Denmark** is an internationally recognized scholar, administrator, leader, researcher, and policy maker. She received her Ph.D. in

social psychology from the University of Pennsylvania and has since made many contributions in that area, particularly to the psychology of women. However, her broad interests and distinguished accomplishments in psychology attest to her status as an eminent generalist in an age of specialization.

Denmark's impact on the field of psychology is widespread. She has authored more than 75 articles and 15 books, presented over 100 talks and invited addresses, and appeared on numerous radio and television shows. Denmark has also served as a leader in psychology in many capacities, including having been president of the American Psychological Association and president of

the Council of International Psychologists. Her research and teaching achievements have earned her fellowship status in several APA distinctions. She is also the recipient of numerous other prestigious distinctions, including the APA's Distinguished Contributions to Psychology in the Public Interest/Senior Career Award as well as APA Division 35's (Psychology of Women) Carolyn Wood Sherif Award.

Denmark has been the Thomas Hunter Professor of Psychology at Hunter College of the City University of New York. At present she is the Robert Scott Pace Distinguished Professor of Psychology at Pace University, where she is Chair of the Department of Psychology.



# TO THE STUDENT

## How the Learning System Works

**T**his book contains a number of learning devices, each of which presents the field of child development in a meaningful way. The learning devices in *Children* will help you learn the material more effectively.

### Chapter Outlines

Each chapter begins with an outline, showing the organization of topics by heading levels. The outline functions as an overview to the arrangement and structure of the chapter.

*Children are on a different plane. They belong to a generation and way of feeling properly their own.*  
—George Santayana

## IMAGES OF CHILDREN

### The Best of Times and the Worst of Times for Today's Children

**I**t is both the best of times and the worst of times for today's children. Their world possesses powers and perspectives inconceivable 50 years ago: computers, longer life expectancies, the ability to reach out to the entire planet through television, satellites, air travel. Children want to trust, but the world has become an unnerving place. The sometimes-fatal temptations of the adult world can descend upon children so early that their ideals become tarnished. Crack cocaine is a far more addictive and deadly substance than marijuana, the drug of an earlier generation. Strange depictions of violence and sex come flashing out of the television set and lodge in the minds of children. The messages are powerful and contradictory: Rock videos suggest orgiastic sex. Public health officials counsel safe sex. Oprah Winfrey and Phil Donahue conduct seminars on exotic drugs, transsexual surgery, serial murders. Television pours a bizarre version of reality into children's imaginations. In New York City, two 5-year-olds argue about whether there is a Santa Claus and what Liberace died of. In New Orleans, a first-grader shaves a piece of chalk and passes the dust around the classroom, acting as if it is cocaine.

Every stable society transmits values from one generation to the next. That is civilization's work. In today's world, the transmission of values is not easy. Parents are raising children in a world far removed from Orzie and Hamlet's era of the 1950s, when two of three American families consisted of a breadwinner (the father), a caregiver (the mother), and the children they were raising. Today fewer than one in five families fits that description. Phrases like *quality time* have found their way into the American vocabulary. A motif of absence plays in the lives of many children. It may be an absence of authority and limits or an absence of emotional commitment (Morrow, 1988).

### PREVIEW

By examining the shape of childhood, we can understand it better. This book is a window into the nature of children's development—your own and that of every other child of the human species. In this first chapter, you will be introduced to some ideas about why we should study children, contemporary concerns about child development, and a historical perspective on children's development. You will learn what development is and what issues are raised by a developmental perspective on children. You will be asked to think about ways to improve the lives of children. You also will read about the nature of careers in child development and how to think critically about children's development.

### WHY STUDY CHILDREN?

Why study children? Perhaps you are or will be a parent or teacher. Responsibility for children is or will be a part of your everyday life. The more you learn about children, the better you can deal with them. Perhaps you hope to gain some insight into your own history—as an infant, as a child, and as an adolescent. Perhaps you just stumbled onto this course thinking that it sounded interesting and that the topic of child development would raise some provocative and intriguing issues about how human beings grow and develop. Whatever your reasons, you will discover that the study of child development is provocative, is intriguing, and is filled with information about who we are and how we grew to be this way.

6 John W. Santrock

## CHAPTER 1

### Introduction

CHAPTER OUTLINE	CHAPTER BOXES
IMAGES OF CHILDREN 6 <i>The Best of Times and the Worst of Times for Today's Children</i>	CRITICAL THINKING ABOUT CHILDREN'S DEVELOPMENT <i>The Importance of Asking Questions—Exploring Your Own Development as a Child 9</i> <i>Imagining What Your Development as a Child Would Have Been Like in Other Cultural Contexts 11</i>
PREVIEW 6	CHAPTER ENDPIECES
WHY STUDY CHILDREN? 6	IMPROVING THE LIVES OF CHILDREN
CHILD DEVELOPMENT—YESTERDAY AND TODAY 7	HEALTH AND WELL-BEING Building a Pyramid of Services for Parents and Children 28
Historical Accounts of Children 7	FAMILIES AND PARENTING Family Policy and the Homeless 29
Improving the Lives of Children 8	EDUCATION Ethnic Minorities in the Field of Child Development 29
Social Policy and Children's Development 12	CULTURE AND ETHNICITY Caring for Children Around the World 30
THE NATURE OF DEVELOPMENT 15	GENDER How Society Views Females and Males 31
Biological, Cognitive, and Socioemotional Processes 15	
Periods of Development 16	
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CAREERS IN CHILD DEVELOPMENT 20	
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*We reach backward to our parents and forward to our children and through their children to a future we will never see, but about which we need to care.*  
—Carl Jung

### Images of Children

Opening each chapter is an imaginative, high-interest piece, focusing on a topic related to the chapter's content.

### Preview

This brief section describes the chapter's main points.



## PREVIEW

Some individuals have difficulty thinking of child development as being a science in the same way that physics, chemistry, and biology are sciences. Can a discipline that studies how babies develop, how parents nurture children, how peers interact, and how children think be equated with disciplines that investigate how gravity works and the molecular structure of a compound? Science is defined not by *what* it investigates but by *how* it investigates. Whether you are studying photosynthesis, butterflies, Saturn's moons, or human development, it is the way you study that makes the approach scientific or not.

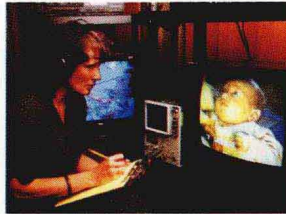
In this chapter, we will study three key ingredients of child development as a science—the scientific method, theories, and methods. You will also learn about ethics and sexism in research on child development, as well as how to be a wise consumer of information about children's development.

## THEORY AND THE SCIENTIFIC METHOD

According to nineteenth-century French mathematician Henri Poincaré, "Science is built of facts the way a house is built of bricks, but an accumulation of facts is no more science than a pile of bricks a house." Science does depend on the raw material of facts or data, as Poincaré indicated, child development's theories are more than just facts.

A theory is a coherent set of ideas that helps explain data and make predictions. A theory contains hypotheses, assumptions that can be tested to determine their accuracy. For example, a theory about children's aggression would explain our observations of aggressive children and predict why children become aggressive. We might predict that children become aggressive because of the coercive interchanges they experience and observe in their families. This prediction would help direct our observations by telling us to look for coercive interchanges in families.

The scientific method is an approach that can be used to discover accurate information about behavior and development that includes the following steps: identify and analyze the problem, collect data, draw conclusions, and revise theories. For example, suppose you decide that you want to help aggressive children control their aggression. You identify a problem, which does not seem like a difficult task. However, as part of the first step, you need to go beyond a general description of the problem by isolating, analyzing, narrowing, and focusing on what you hope to investigate. What specific strategies do you want to use to reduce children's aggression? Do you want to look at only one strategy, or several strategies? What aspect of aggression do you want to study—its biological, cognitive, or socioemotional characteristics? Gerald Patterson and his colleagues (Patterson, 1991; Patterson, Capaldi, & Bank, 1991) argue that parents' failure to teach reasonable levels of compliance sets in motion coercive inter-



Researchers use the scientific method to obtain accurate information about children's behavior and development. Data collection is part of the scientific method, demonstrated here by a researcher conducting a study of infant development.

changes with family members. In this first step in the scientific method, a problem is identified and analyzed.

After you have identified and analyzed the problem, the next step is to collect information (data). Psychologists observe behavior and draw inferences about thoughts and emotions. For example, in the investigation of children's aggression, you might observe how effectively parents teach reasonable compliance levels to their children and the extent to which coercive exchanges take place among family members.

Truth is arrived at by the painstaking process of eliminating the untrue.

—Arthur Conan Doyle

The Science of Child Development

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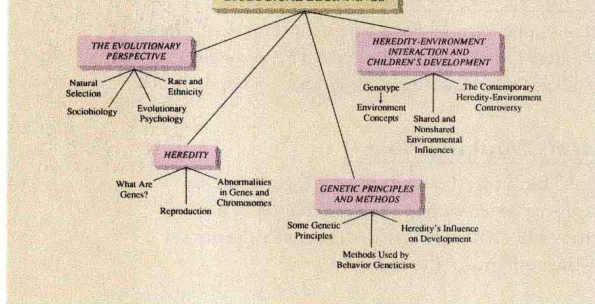
## OVERVIEW



Biological beginnings raise questions of how we as a species came to be, how parents' genes are shuffled to produce a particular child, and how much experience can go against the grain of heredity. In this chapter, we studied the Jim and Jim twins; the evolutionary perspective, in which we discussed natural selection, sociobiology, evolutionary psychology, and race and ethnicity; the nature of heredity; what genes are; how reproduction takes place; some abnormalities in genes and chromosomes; genetic principles; methods used by behavior geneticists; heredity's influence on development; and what heredity-environment interaction is like. With regard to heredity-environment interaction, behavior geneticists believe that it is important to consider passive genotype-environment, evocative genotype-environment, and active genotype-environment interactions, as well as shared and nonshared environmental experiences. Scarr's biological view has recently generated considerable controversy. Remember that you can obtain a summary of the main ideas in the entire chapter by again studying the two concept tables on pages 87 and 94.

In the next chapter, we will continue our exploration of children's biological beginnings by discussing the dramatic unfolding of prenatal development.

## BIOLOGICAL BEGINNINGS



Biological Beginnings

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## Concept Tables

Two times in each chapter we review what has been discussed so far in that chapter by displaying the information in concept tables. This learning device helps you get a handle on material several times a chapter so you don't wait until the end of the chapter and have too much information to digest.

## Photographs and Legends

Special attention was given to the selection of photographs for *Children*. Many photographs included in the text were submitted by experts in child development. Legends were carefully written to clarify and elaborate concepts.

## CONCEPT TABLE 8.2

### Emotional and Personality Development

Concept	Processes/Related Ideas	Characteristics/Description
Emotional Development	What is emotion?	Emotion is feeling or affect that involves a mixture of physiological arousal and overt behavior. Emotions can be classified in terms of positive affectivity and negative affectivity.
	The New Functionalism in Emotions	The new functionalist view emphasizes that emotion is relational rather than intrapsychic; that there is a close link between emotion and the person's goals and effort; that emotional expressions can serve as social signals; and that the physiology of emotion is much more than homeostatic and the person's interior—it also includes the ability to regulate and be regulated by social processes.
	Affect in parent-child relationships	Emotions are the first language that parents and infants communicate with before the infant acquires speech. Infant and adult affective communicative capacities make possible coordinated infant-adult interaction.
	Emotional development in infancy	Infant developed the Maternal Discriminative Facial Coding System (MDD) for coding infants' expression of emotions. Based on the coding system, interest, distress, and disgust are present at birth, a social smile appears at about 4 to 6 weeks, anger, surprise, and sadness emerge at about 3 to 4 months, fear is displayed at about 5 to 7 months, shame and shyness emerge at about 6 to 8 months, and contempt and guilt appear at about 2 years of age.
Personality Development	Crying	Crying is the most important mechanism newborns have for communicating with their world. Babies have at least three types of cries—basic cry, anger cry, and pain cry. Most parents, and adults in general, can tell whether an infant's cries signify anger or pain. Controversy still exists about whether babies should be soothed when they cry. An increasing number of developmentalists support Ainsworth's and Bowlby's idea that infant crying should be responded to immediately in the first year of life.
	Smiling	Smiling is an important communicative affective behavior of the infant. Two types of smiling can be distinguished in infants: reflexive and social.
	Trust	Erikson argues that the first year is characterized by the crisis of trust versus mistrust; his ideas about trust have much in common with Ainsworth's concept of secure attachment.
	Developing a sense of self and independence	At some point in the second half of the second year of life, the infant develops a sense of self. Independence becomes a central theme in the second year of life. Mahler argues that the infant separates herself from the mother and then develops individuality. Erikson stresses that the second year of life is characterized by the stage of autonomy versus shame and doubt.
Problems and Disorders	Adapting caregiving to the developmental status of the infant and toddler	From birth to 4 months of age, caregivers should respond quickly to the infant's needs with love, affection, and care. From 4 to 8 months of age, the caregiver's consistent care and emotional involvement with the infant support the development of a focused attachment. From 8 to 12 months of age, caregivers should continue to talk and play with the infant, and allow the infant access to other adults and infants. During this age period, caregivers need to monitor their infants' attentional bids. From 12 to 18 months of age, toddlers' independence needs to be provided but their negativism needs to be dealt with firmly in the context of a loving and nurturant atmosphere. From 18 to 24 months of age, caregivers can encourage the toddler's development of self, continue monitoring their negativism, and continue giving them considerable affection.
	Child abuse	An understanding of child abuse requires information about cultural, familial, and community influences. Sexual abuse of children is now recognized as a more widespread problem than was believed in the past. Child abuse places the child at risk for a number of developmental problems.
	Infantile autism	Infantile autism is a severe disorder that first appears in infancy. It involves an inability to relate to people, speech problems, and persists over changes in routine or environment. Autism seems to involve some form of organic brain and genetic dysfunction.

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John W. Santrock

## Overview

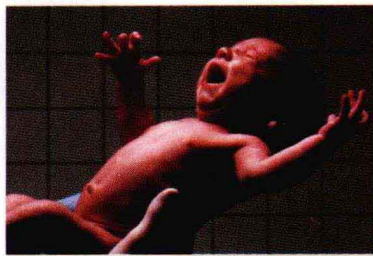
The overview at the end of each chapter consists of a brief summary of the chapter and a cognitive tree that visually lets you see the chapter's framework.



adverse effects of maternal deprivation (mothers' neglect of their infants) became known and was interpreted to include a lack of stimulation. A number of research studies followed that indicated a "more is better" approach in the stimulation of preterm infants. Today, however, experts on infant development argue that preterm infant care is far too complex to be described only in terms of amount of stimulation.

Following are some conclusions about the situation of preterm infants (Lester & Tronick, 1990):

1. Preterm infants' responses to stimulation vary with their conceptual age, illness, and individual makeup. The immature brain of the preterm infant may be more vulnerable to excessive, inappropriate, or mistimed stimulation. The very immature infant should probably be protected from stimulation that could destabilize its homeostatic condition.
2. As the healthy preterm infant becomes less fragile and approaches term, the issue of what is appropriate stimulation should be considered. Infants' behavioral cues can be used to determine appropriate interventions. An infant's signs of stress or avoidance behaviors indicate that stimulation should be terminated. Positive behaviors indicate that stimulation is appropriate.
3. Intervention with the preterm infant should be organized in the form of an individualized developmental plan. This plan should be constructed as a psychosocial intervention to include the parents and other immediate family members and to acknowledge the socioeconomic, cultural, and home environmental factors that will determine the social context in which the infant will be reared. The developmental plan should also include assessing the infant's behavior, working with the parents to help them understand the infant's medical and behavioral status, and helping the parents deal with their own feelings.



	0	1	2
Heart rate	Absent	Slow—less than 100 beats per minute	Fast—100–140 beats per minute
Respiratory effort	No breathing for more than 1 minute	Irregular and slow	Good breathing with normal crying
Muscle tone	Limp and flaccid	Weak, inactive, but some flexion of extremities	Strong, active motion
Body color	Blue and pale	Body pink, but extremities blue	Entire body pink
Reflex irritability	No response	Grimace	Coughing, sneezing, and crying

FIGURE 5.2

The Apgar Scale

evaluates infants' heart rate, respiratory effort, muscle tone, body color, and reflex irritability. An obstetrician or nurse does the evaluation and gives the newborn a score, or reading, of 0, 1, or 2 on each of these five health signs (see Figure 5.2). A total score of 7 to 10 indicates that the newborn's condition is good, a score of 5 indicates there may be developmental difficulties, and a score of 3 or below signals an emergency and indicates that the baby might not survive.

Whereas the Apgar scale is used immediately after birth to identify high-risk infants who need resuscitation, the *Brazelton Neonatal Behavioral Assessment Scale* is given shortly after birth to assess the newborn's neurological development, reflexes, and reactions to people. Twenty reflexes are assessed, along with reactions to circumstances, such as the infant's reaction to a rattle. The examiner rates the newborn, or neonate, on each of 27 categories

## MEASURES OF NEONATAL HEALTH AND RESPONSIVENESS

The *Apgar scale* is a method widely used to assess the health of newborns at 1 and 5 minutes after birth. The *Apgar scale*

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## Evaluating the Parenting Styles of Both Parents

In our discussion of parenting styles, authoritative parenting was associated with social competence in children. In some cases, though, a child's parents differ in their parenting styles. Consider all four styles of parenting—authoritarian, authoritative,

neglectful, and indulgent—on the parts of the mother and the father. A best case is when both parents are authoritative. What might the effects on the child be, if the father is authoritarian and the mother is indulgent, or the father is authoritarian and the mother is authoritative, and so on? Is it better for the child if both parents have the same parenting style, even if the styles both are authoritarian, both indulgent, or both neglectful, or is it better for the child to have at least one authoritative parent when the other parent is authoritarian, indulgent, or neglectful?

In thinking about parenting styles, consider also what style or styles your father and mother used in rearing you. Were they both authoritative, one authoritarian, the other indulgent, and so on? What effects do you think their parenting styles had on your development?

By evaluating the nature of parenting styles on the part of both parents, you are learning to think critically by applying developmental concepts to enhance personal adaptation.

We had just come home from the ball game. I sat down on the sofa next to the light so I could read. Sally [the sister] said, "Get up. I was sitting there first. I just got up for a second to get a drink." I told her I was not going to get up and that I didn't see her name on the chart. I got mad and started pushing her. Her drink spilled all over her. Then she got really mad; she shoved me against the wall, hitting and clowing at me. I managed to grab a handful of hair.

At this point, Sally came into the room and begins to tell her side of the story. Sandra interrupts, "Mother, you always take her side." Sound familiar? Any of you who have grown up with siblings probably have a rich memory of aggressive, hostile interchanges; but sibling relationships have many pleasant, caring moments as well. Children's sibling relationships include helping, sharing, teasing, fighting, and playing. Children can act as emotional supports, rivals, and communication partners (Carlson, 1995). More than 80 percent of American children have one or more siblings (brothers or sisters). Because there are so many possible sibling combinations, it is difficult to generalize about sibling influences. Among the factors to be considered are the number of siblings, age of siblings, birth order, age spacing, sex of

siblings, and whether sibling relationships are different from parent-child relationships.

Is sibling interaction different from parent-child interaction? There is some evidence that it is. Observations indicate that children interact more positively and in more varied ways with their parents than with their siblings (Baskett & Johnson, 1982). Children also follow their parents' dictates more than those of their siblings, and they behave more negatively and punitively with their siblings than with their parents.

In some instances, siblings may be stronger socializing influences on the child than parents are (Cicirelli, 1994). Someone close in age to the child—such as a sibling—may be able to understand the child's problems and be able to communicate more effectively than parents can. In dealing with peers, and coping with difficult teachers, and discussing taboo subjects such as sex, siblings may be more influential in the socialization process than parents.

Is sibling interaction the same around the world? In industrialized societies like the United States, delegation of responsibility for younger siblings to older siblings tends to be carried out informally by parents, primarily to give the parent freedom to pursue other activities. However, in nonindustrialized countries, such as Kenya (in Africa), a much greater degree of importance is attached to the older sibling's role as a caregiver to younger siblings. In industrialized countries, the older sibling's caregiving role is often discretionary; in nonindustrialized countries it is more obligatory (Cicirelli, 1994).

Big sisters are the crab grass in the lawn of life.

—Charles Schulz, *Peanuts*

Birth order is a special interest of sibling researchers. When differences in birth order are found, they usually are explained by variations in interactions with parents and siblings associated with the unique experiences of being in a particular position in the family. This is especially true in the case of the firstborn child (Teti & others, 1993). The oldest child is the only one who does not have to share parental love and affection with other siblings—until another sibling comes along. An infant requires more attention than an older child; this means that the firstborn

Socioemotional Development in Early Childhood

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## Visual Figures and Tables

These include both a description of important content information and photographs that illustrate the content. They review and summarize important theories and ideas contained in the text.

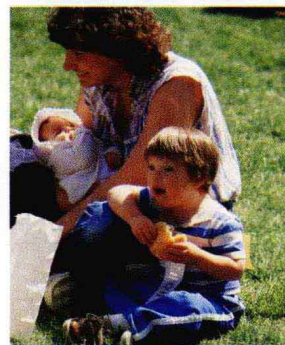


FIGURE 13.8

**A Down Syndrome Child**  
What causes a child to develop Down syndrome? In what major classification of mental retardation does the condition fall?

and are highly sensitive to what others—both peers and adults—want from them. However, as adults, the family members are usually invisible, perhaps because adult settings don't tax their cognitive skills as sorely. It may also be that the family members increase their intelligence as they move toward adulthood.

**Giftedness** There have always been people whose abilities and accomplishments outshine others—the white kid in class, the star athlete, the natural musician. People who are **gifted** have above-average intelligence (an IQ of 120 or higher) and/or superior talent for something. When it comes to programs for the gifted, most school systems select children who have intellectual superiority and academic aptitude. Children who are talented in the visual and performing arts (arts, drama, dance), athletics, or other special aptitudes tend to be overlooked.

Until recently, giftedness and emotional distress were thought to go hand in hand. English novelist Virginia Woolf suffered from severe depression, for example, and eventually committed suicide. Sir Isaac Newton, Vincent van Gogh, Ann Sexton, Socrates, and Sylvia Plath all had emotional problems. However, these are the exception rather than the rule; in general, no relation between giftedness and mental disorder has been found. Recent studies support the conclusion that gifted people tend to be more

mature and have fewer emotional problems than others (Feldman & Piroto, 1995).

Lewis Terman (1925) has followed the lives of approximately 1,500 children whose Stanford-Binet IQs averaged 150 into adulthood; the study will not be complete until the year 2010. Terman has found that this remarkable group is an accomplished lot. Of the 800 males, 78 have obtained doctorates (they include two past presidents of the American Psychological Association), 48 have earned M.D.s, and 85 have been granted law degrees. Most of these figures are 10 to 30 times greater than those found among the 800 men of the same age chosen randomly as a comparison group. These findings challenge the commonly held belief that the intellectually gifted are emotionally disordered or socially maladjusted.

The 672 gifted women studied by Terman (Terman & Oden, 1959) underscore the importance of relationships and intimacy in women's lives. Two-thirds of these exceptional women graduated from college in the 1930s, and one-fourth of them attended graduate school. Despite their impressive educational achievements, when asked to order their life's priorities, the gifted women placed families first, friendships second, and careers last. For these women, having a career often meant not having children. Of the 30 most successful women, 25 did not have any children. Such undivided commitments to the family are less true of women today. Many of the highly gifted women in Terman's study questioned their intelligence and concluded that their cognitive skills had waned in adulthood. Studies reveal that today gifted women have a stronger confidence in their cognitive skills and intellectual abilities than the gifted women in Terman's study did (Tomlinson-Keasey, 1990). Terman's gifted women represented a cohort who reached midlife prior to the women's movement and the current pervasiveness of the dual-career couple and the single-parent family (Tomlinson-Keasey, 1993).

In the most recent analysis of Terman's gifted children, two factors predicted longevity: personality and family stability (Friedman & others, 1995). With regard to personality, those who as children were conscientious and less impulsive lived significantly longer. With regard to family stability, those whose parents had divorced before the children reached age 21 faced a one-third greater mortality risk than did their counterparts whose parents had not divorced. Individuals who became divorced themselves also faced a shorter life. And not marriage itself, but rather a stable marriage history, was linked with increased longevity.

Never to be cast away are the gifts of the gods, magnificent.  
—Homer, *The Iliad*, 9th Century B.C.

**Creativity** Most of us would like to be both gifted and creative. Why was Thomas Edison able to invent so many things? Was he simply more intelligent than most people? Did he spend long hours toiling away in private?

Cognitive Development in Middle and Late Childhood

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## Key Term Definitions

Key terms appear in boldface type with their definitions immediately following in italic type. This provides you with a clear understanding of important concepts.

## Critical Thinking Boxes

Critical Thinking About Children's Development boxes appear several times in every chapter. These questions will challenge you to think more deeply about the contents of the chapters.



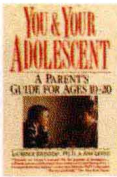
## Key Terms

Listed at the end of each chapter are key terms that are defined throughout the chapter. They are listed with page references and are defined again in a page-referenced glossary at the end of the book.

## Practical Knowledge About Children

This feature, appearing at the end of each chapter, reviews recommended books that contain valuable information to help children reach their full potential.

### PRACTICAL KNOWLEDGE ABOUT CHILDREN



**You & Your Adolescent**  
(1990) by Laurence Steinberg and Ann Levine.  
New York: Harper Perennial.

*You & Your Adolescent* provides a broad, developmental overview of adolescence with parental advice mixed in along the way. Author Laurence Steinberg is a professor of psychology at Temple University and a highly respected researcher in adolescent

development. The book is divided into the preteens (10-13), the teens (14-17), and toward adulthood (18-20). In Steinberg and Levine's approach, knowing how adolescents develop keeps parents from making a lot of mistakes. This is an excellent book for parents of adolescents. It serves the dual purpose of educating parents about how adolescents develop and giving them valuable parenting strategies for coping with teenagers.



**Fateful Choices**  
(1992) by Fred Hechinger.  
New York: Hill and Wang.

The substance of this excellent book was provided by the Carnegie Council on Adolescent Development. One of the Carnegie Council's main themes comes through clearly in this book—linking health and education in the

development of adolescents. The author provides valuable recommendations that can improve the health and well-being of all adolescents, especially those at risk for problems. Various chapters focus on adolescents at risk, adolescent pregnancy, drug abuse, nutrition and exercise, and youth organizations.



**Adolescents at Risk**  
(1990) by Joy Dryfoos.  
New York: Oxford University Press.

This is an excellent book on adolescent problems. Dryfoos describes four main problems that keep adolescents from reaching their potential: drug problems, delinquency, pregnancy,

and school-related problems. She provides helpful sketches of programs that are successful in treating these problems. She argues that many at-risk adolescents have more than one problem and that treatment needs to take this interrelatedness of problems into account. School and community programs are especially highlighted.

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## Improving the Lives of Children

The final part of each chapter is called "Improving the Lives of Children." It contains discussions of five topics that can help children reach their full potential: Health and Well-Being, Families and Parenting, Education, Culture and Ethnicity, and Gender.

## KEY TERMS

**natural selection** The evolutionary process that favors individuals of a species that are best adapted to survive and reproduce. 75

**sociobiology** A view that relies on the principles of evolutionary biology to explain behavior. 76

**evolutionary psychology** A contemporary approach that emphasizes that behavior is a function of mechanisms, requires input for activation, and is ultimately related to survival and reproduction. 76

**race** The term for a system for classifying plants and animals into subcategories according to specific physical and structural characteristics. 77

**chromosomes** Threadlike structures that come in 23 pairs, one member of each pair coming from each parent. Chromosomes contain the genetic substance DNA. 80

**DNA** A complex molecule that contains genetic information. 80

**genes** Units of hereditary information composed of DNA. Genes act as a blueprint for cells to reproduce themselves and manufacture the proteins that maintain life. 80

**gametes** Human reproduction cells created in the testes of males and the ovaries of females. 80

**meiosis** The process of cell doubling and separation of chromosomes in which each pair of chromosomes in a cell separates, with one member of each pair going into each gamete. 80

**reproduction** The process that, in humans, begins when a female gamete (ovum) is fertilized by a male gamete (sperm). 81

**zygote** A single cell formed through fertilization. 81

**in vitro fertilization** Conception outside the body. 81

**phenylketonuria (PKU)** A genetic disorder in which an individual cannot properly metabolize an amino acid. PKU is now easily detected but, if left untreated, results in mental retardation and hyperactivity. 83

**Down syndrome** A common genetically transmitted form of mental retardation, caused by the presence of an extra (47th) chromosome. 83

**sickle-cell anemia** A genetic disorder that affects the red blood cells and occurs most often in African American individuals. 83

**Klinefelter syndrome** A genetic disorder in which males have an extra X chromosome, making them XXY instead of XY. 83

**Turner syndrome** A genetic disorder in which females are missing an X chromosome, making them XO instead of XX. 84

**XYY syndrome** A genetic disorder in which males have an extra Y chromosome. 84

**amniocentesis** A prenatal medical procedure in which a sample of amniotic fluid is withdrawn by syringe and tested to discover if the fetus is suffering from any chromosomal or metabolic disorders. It is performed between the 12th and 16th weeks of pregnancy. 84

**ultrasound sonography** A prenatal medical procedure in which high-frequency sound waves are directed into the pregnant woman's abdomen. 84

**chorionic villus test** A prenatal medical procedure in which a small sample of the placenta is removed at a certain point in the pregnancy between the 8th and the 11th weeks of pregnancy. 86

**maternal blood test** A prenatal diagnostic technique that is used to assess blood albumin level, which is associated with neural tube defects. This technique is also called the alpha-fetoprotein test (AFP). 86

**dominant-recessive genes principle** If one gene of a pair is dominant and one is recessive (goes back or recedes), the dominant gene exerts its effect, overriding the potential influence of the recessive gene. A recessive gene exerts its influence only if both genes in a pair are recessive. 88

**polygenic inheritance** The genetic principle that many genes can interact to produce a particular characteristic. 88

**genotype** A person's genetic heritage; the actual genetic material. 88

**phenotype** The way an individual's genotype is expressed in observed and measurable characteristics. 88

**reaction range** The range of possible phenotypes for each genotype, suggesting the importance of an environment's restrictiveness or enrichment. 89

**canalization** The process by which characteristics take a narrow path or developmental course. Apparently, preservative forces help to protect a person from environmental extremes. 90

**behavior genetics** The study of the degree and nature of behavior's heredity basis. 90

**twin study** A study in which the behavioral similarity of identical twins is compared with the behavioral similarity of fraternal twins. 90

**identical twins** Twins who develop from a single fertilized egg that splits into two genetically identical replicas, each of which becomes a person. 90

**fraternal twins** Twins who develop from separate eggs and separate sperm, making them genetically no more similar than ordinary siblings. 90

**adoption study** A study in which investigators seek to discover whether, in behavior and psychological characteristics, adopted children are more like their adoptive parents, who provided a home environment, or more like their biological parents, who contributed their heredity. Another form of the adoption study is to compare adoptive and biological siblings. 92

**passive genotype-environment interactions** The type of interactions that occur when parents, who are genetically related to the child, provide a rearing environment for the child. 92

**evocative genotype-environment interactions** The type of interactions that occur when the child's genotype elicits certain types of physical and social environments. 92

**active (niche-picking) genotype-environment interactions** The type of interactions that occur when children seek out environments they find compatible and stimulating. 92

**shared environmental experiences** Children's common environmental experiences that are shared with their siblings, such as their parents' personalities and intellectual orientation, the family's social class, and the neighborhood in which they live. 93

**nonshared environmental experiences** The child's own unique experiences, both within the family and outside the family, that are not shared by another sibling. Thus, experiences occurring within the family can be part of the "nonshared environment." 93

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## IMPROVING THE LIVES OF CHILDREN

Remember that at the end of each chapter we will examine five areas of children's development that hold opportunities for improving children's lives: health and well-being,

families and parenting, education, culture and ethnicity, and gender.

## HEALTH AND WELL-BEING

### Protective Buffers for Children

What are some of the factors that help children be resilient in response to stressful circumstances and assaults on their health and well-being? In one large-scale study, Emmy Werner and Ruth Smith (1982) found that children greatly benefit from having a readily available support network of grandparents, neighbors, or relatives. Many children who cope effectively with stress, threats, and assaults on their health and well-being have a cluster of protective factors, not just one or two. But if forced to pick the most important factor that helps children weather problems, Werner says it is a basic, trusting relationship with an adult. In all of the protective clusters in Werner's study, there was not one that did not include that one good relationship, whether with a parent, grandparent, older sibling, teacher, or mentor—someone consistent in the child's life who could say to the child, "You count. I love you and will care for you. I will always be there for you." Even children of abusive or schizophrenic parents sometimes prove to be resilient if they have had at least one caring person nurturing and protecting them—someone who serves as sort of a beacon in their lives.

Thomas Boyce (1991), a pediatric professor at the University of California, San Francisco, described an 8-year-old boy from an impoverished rural African American family, who had been abandoned by his mother. The boy also had "prune-belly syndrome," an abnormality of the abdominal musculature that left him with significant kidney and urinary problems, which required extensive surgery. But the boy had two nurturing, caring grandparents who had raised him from infancy. They consistently supported him and unflinchingly accompanied him on his hospital visits. Despite his physical problems and the absence of his mother, the boy's school performance was superb.

Such protective factors in children's lives work best when they are long-lasting. There is no guarantee that the child will always be resilient, since families and children may experience a host of ups and downs as children develop. Children who cope well early in their development can have setbacks later because of family or school problems. In life, no child is unbreakable. Caring and supporting are needed by at least one significant person throughout the childhood years for optimal development.



One of the most important factors that provides a protective buffering of children from stressors and problems is the long-term presence of a basic, trusting relationship with an adult.

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# PROLOGUE

## *If I Had My Child to Raise Over Again*

*If I had my child to raise all over again,  
I'd finger paint more, and point the finger less.  
I'd do less correcting, and more connecting.  
I'd take my eyes off my watch, and watch with my eyes.  
I would care to know less, and know to care more.  
I'd take more hikes and fly more kites.  
I'd stop playing serious, and seriously play.  
I would run through more fields, and gaze at more stars.  
I'd do more hugging, and less tugging.  
I would be firm less often, and affirm much more.  
I'd build self-esteem first, and the house later.  
I'd teach less about the love of power,  
And more about the power of love.*

—Diane Loomans



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